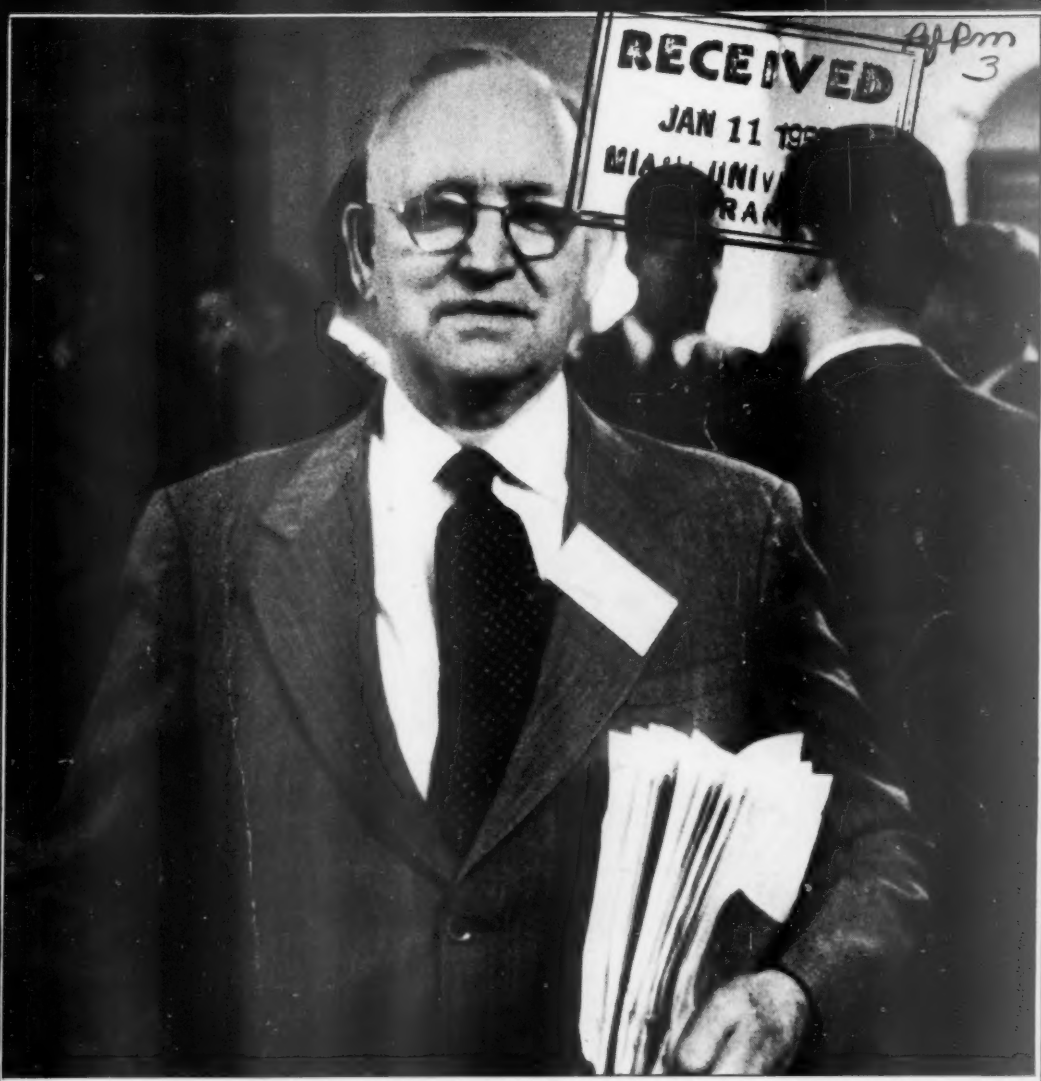


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# BUSINESS WEEK

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Economist John D. Black: Theory is no good if you can't use it (page 104)

A MCGRAW-HILL PUBLICATION

JAN. 8, 1955

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# new!



**NCR paper (No Carbon Required)**

## Makes Copies without Carbon!

National has important news for business everywhere! The duplicate copies you see above were made *without* carbon paper! This is made possible by use of a special paper developed by the research laboratories of The National Cash Register Company. It is called "NCR Paper" (No Carbon Required).

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RESEARCH KEEPS

# B.F. Goodrich

FIRST IN RUBBER



## There goes a turnpike in the rough

*A typical example of B. F. Goodrich improvement in rubber*

**I**T'S down the hatch—20 barrels a minute—as dry cement whistles through that hose and pours into the ship's hold.

A wonderful idea—pumping cement through hose—much faster, far cheaper than individual sacks that had to be carried on and off the ship. Only one trouble.

Turn off the pump, and the hose would collapse, putting permanent dents in the coil of solid steel wire buried in the rubber. B. F. Goodrich engineers went to work on the problem, and came up with a new hose design. They put a spiral of flexible

steel cable in the hose body. That makes the hose flexible as well as strong, so it always returns to full round shape under pressure.

The B. F. Goodrich hose was tried, and works perfectly. It has carried more than 1½-million barrels of cement—enough to pave a 100-mile stretch of turnpike—and shows no sign of wearing out.

Product improvement is *always* going on at B. F. Goodrich. Some improvements are big, spectacular; some are little; many are too technical to explain easily, but all save you money. If you use hose, belting or other rubber

products, remember B. F. Goodrich is one company that will *never* lower its quality standards. This means you can be sure of top performance and real money savings.

To get this extra value, these lower costs year after year, call your B. F. Goodrich distributor. Find out about the latest improvements or try out the latest and best types of any rubber products you buy. *The B. F. Goodrich Company, Dept. M-355, Akron 18, Ohio*

**B.F. Goodrich**  
**INDUSTRIAL PRODUCTS**  
**DIVISION**

## PARADE SETS THE PACE

# Maybe he's looking for you

If you lived in Thailand this giant statue at the entrance of the Bangkok temple would be your reminder that you had better attend religious services regularly—or else!

When Parade featured this on-the-spot story of Thailand with full color pictures, more than nine in every ten readers stopped to get the facts.

Features like this, week after week, make Parade the best read magazine in print and give advertisers twice as many readers for their dollar as the big weekday magazines, according to independent surveys.

No doubt about it: To move mountains of merchandise at a profit, Parade has what it takes.



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with more than 14 million readers every week.*

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BUSINES

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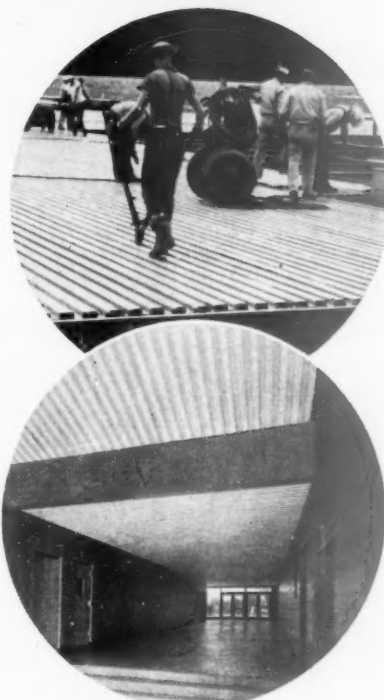
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Q-Deck is sturdy and long-span... the sides and ends of each section lap tight to avoid the need for inflammable vapor seal. Robertson engineers have developed a unique method of placing glass fiber in the flutes to produce an effective low-cost acoustical ceiling. Use the coupon to write for literature.



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BUSINESS WEEK • Jan. 8, 1955

# It's Cast Iron

**Republic Pig Iron used  
in developing porcelain  
cast iron cookware\*  
only  $\frac{1}{10}$ " thick**

\*Made by Prizer-Painter Stove Works, Inc., Reading, Pa.





# with a FEATHERWEIGHT feel!

Take heavy, time-honored cast iron. Give it a dash of imagination, a coating of color. Add the practical knowledge and technical skill of a pig iron metallurgist and you come up with a new concept in cast iron cookware.

Sure, it's still cast iron. But now it's light and easy to handle. It is only a tenth of an inch thick including the attractive, porcelain enamel surface. Yet, it retains heat.

And more important, the manufacturer has developed a new and profitable outlet for his production.

The metallurgist was from Republic Steel. He was able to recommend the proper grade of pig iron for this job without prejudice or hesitation—because Republic is the only producer of all grades of merchant pig iron.

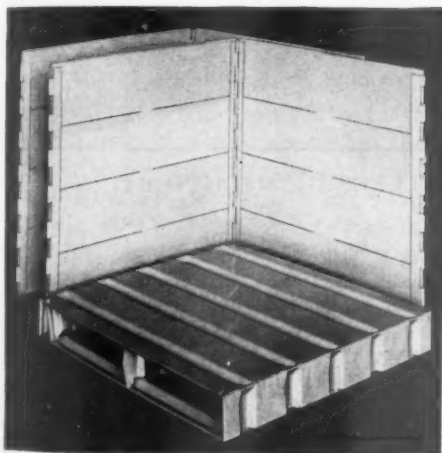
Close cooperation between customer and Republic is not unusual. In fact, it's an across-the-board operation. Field metallurgists, machining experts and engineers from all Republic Divisions spend a large part of their time in customers' plants advising and recommending to insure the greatest benefit from the use of Republic steels.

## REPUBLIC STEEL

*World's Widest Range of Standard Steels and Steel Products*



You can handle heavy castings easily with Republic Chain Slings. Fabricated from Republic Alloy Steels, their high strength—low weight ratio—provides an exceptionally high degree of safety. Republic Chain Slings are made in any length to meet your requirements. All are proof tested and warranted to meet or exceed specifications.



Collaps-a-tainer, the steel box that folds flat, can reduce your cost of interplant shipping. Have your traffic manager figure your cost of returning empty containers. Then compare with savings possible from using the Collaps-a-tainer. Four collapsed units ship in the space of one open unit. It's easy to assemble, lightweight, strong and durable and easy to knock down. Collaps-a-tainer can also be used on the production line or as a storage bin. It stacks to any practical height. Standard size, 30" x 30" x 30", weighs approximately 100 pounds.

To help improve foundry efficiency and economy during molding, moving, storing and shipping operations, Republic makes a complete line of steel boxes, skids, pallets and flasks. They are built to your specific requirements. Republic Pallet Racks and Steel Shelving provide additional space-saving economy—help simplify your handling problems.



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Please send me literature on:

- ☐ Chain Slings ☐ Boxes, Skids, Pallets ☐ Collaps-A-Tainer  
☐ Pallet Racks, Shelving ☐ Have a Pig Iron Metallurgist Call.

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RC-7510-A

# PAYD\* PLAN

*will help you reach your 1955 goals*

\* **PAY-AS-YOU-DEPRECIATE** — *An Entirely New Concept of Financing Machinery Purchases*

Government has stimulated machinery purchases for 1955 by speeding up depreciation allowances. Another competitive year lies ahead. Don't let lack of new equipment block your 1955 production and profit goals!

***PAYD puts profit-making machinery to work fast!***

New as it is, PAYD PLAN is proving to be the logical way to acquire modern machinery. PAYD meets two vital needs: (1) how to buy new machinery with minimum initial cash outlay, (2) how to pay the balance with the aid of faster depreciation allowances. In effect, you write off equipment payments as expense.

PAYD gives you three direct benefits. You put new machinery into profitable production at once. You conserve working capital with a long term repayment timetable. Your payments decline as your machines become costlier to maintain.

An important factor in PAYD is *long terms*. For example, on machine tools and textile machinery, terms go as long as 10 years . . . materials handling

equipment, 8 years . . . construction equipment, 6 years.

The PAYD PLAN charge is 4.25% for each year of the term, computed on the original unpaid balance.

WRITE for new folder describing PAYD PLAN and how it can help you in 1955. Your inquiry handled promptly.



## SELLERS OF MACHINERY

PAYD PLAN will increase your sales.  
Write for details.

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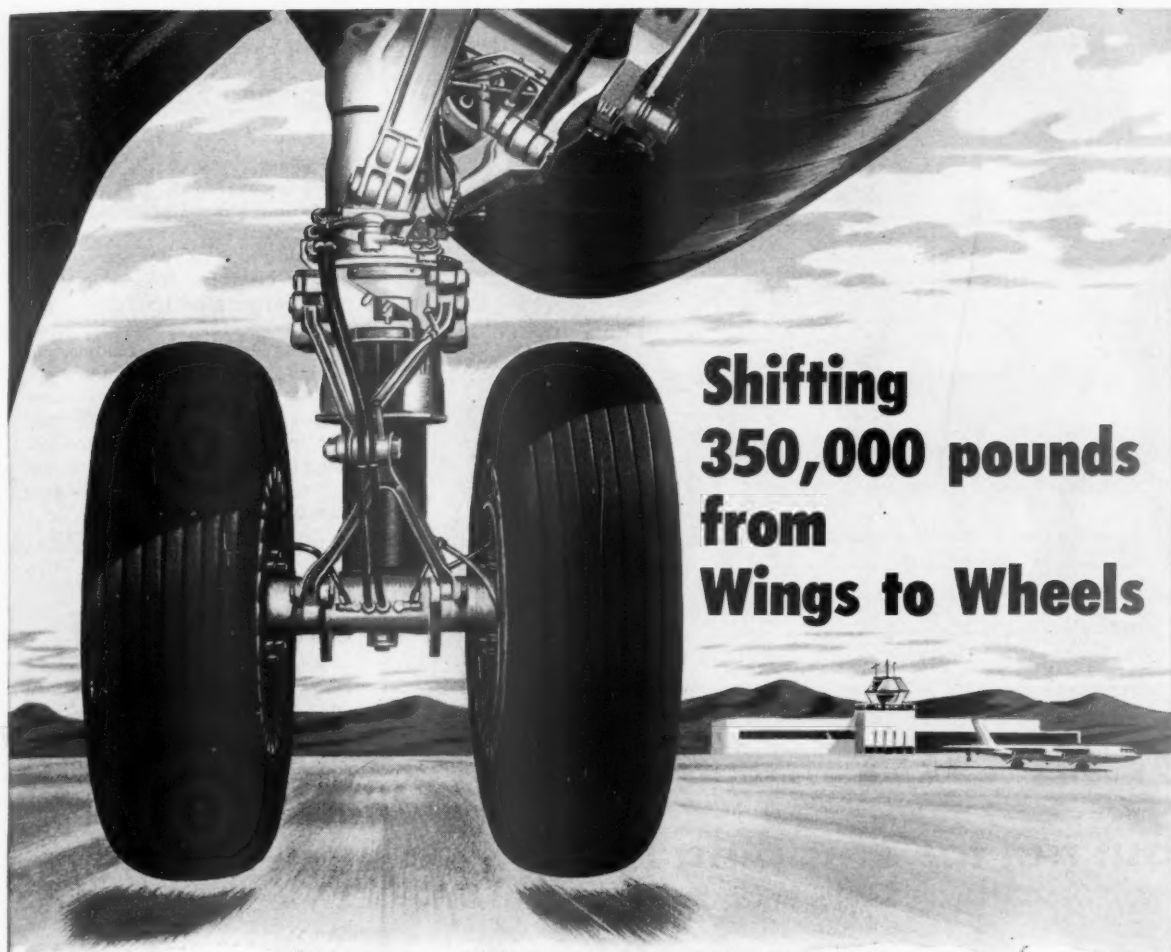
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## Shifting 350,000 pounds from Wings to Wheels

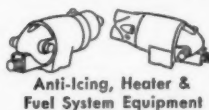
### ADEL SAFETY rides with every flight

Bringing giants of the sky down to earth, where tons of weight are gently transferred from wings to wheels, requires the most rugged yet delicate precision controls. Here's where ADEL hydraulic and pneumatic control equipment assists in the operation of flaps, landing gear, brakes and other vital components for safe, smooth landings. In serving the vast aviation industry, ADEL safety rides with every flight.



The new 8-jet Boeing B-52 "Stratofortress" is equipped with many ADEL precision engineered units for exacting performance under every flying condition.

Write for descriptive brochure on aircraft accessories designed and manufactured by ADEL:



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A DIVISION OF **GENERAL METALS CORPORATION**  
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## TIME OUT

**..but not for shipping hazards!**

They never take time out. Your product has to meet and beat them every minute it's in transit. But you can run up a high score in the safety column by putting that product in a quality, precision built Fort Wayne corrugated container that cuts complaints, rejects, damage claims and costs. Call on Fort Wayne, Coach!

**Fort Wayne**

**CORRUGATED PAPER COMPANY**

GENERAL OFFICES • FORT WAYNE 1, INDIANA

Corrugated Fibre Boxes • Corrugated Paper Products



## READERS REPORT

### Changing Patterns

Dear Sir:

I have been a subscriber to **BUSINESS WEEK** for three or four years and I feel I get more out of each new issue.

Your report on the gains made by the Negroes [BW—Dec.18'54, p78] was very interesting. We can all stand more information on all minority groups, and readjust our thinking in regard to them.

I am going to subscribe to some Negro publication so I can have a continual and more intelligent insight into the problems of this important part of our country's population.

Thanks for getting me started.

JAMES A. SAYER

VIRGINIA, MINN.

Dear Sir:

Your recent articles on the Negro problem in South Africa [BW—Dec.11'54,p104], and the United States [BW—Dec.18'54, p78] are courageous and objective, and they imply that you think it is time that American businessmen face the problem.

E. STANLEY GRANT

PHILLIPSBURG, N. J.

Dear Sir:

In . . . the article entitled The Fastest Changing Part of the U.S. Market, you state: "There are upwards of 15-million Negroes in the U.S., roughly 10% of the total population, and the nation's biggest minority group, unless you count Roman Catholics in that category."

Why count Roman Catholics in that category? In what way do Roman Catholics differ from other citizens? They worship the Lord in the church of their choice, as others do. Incidentally, Catholics are not the largest minority group, as can be seen from the figures below, taken from U.S. census reports, using the nearest million:

Population of U.S. est.	155,000,000
Members of all churches	89,000,000
Roman Catholics	29,000,000
Jewish	5,000,000
Eastern Orthodox, Buddhists, etc.	4,000,000
Various Protestant Sects.	51,000,000
No religion	66,000,000

If we must set up separate categories, you can see from the above . . . that the Protestants are actually the largest minority group,



# Remington Rand

**"Janitrol heaters are the most satisfactory for us. Maintenance is no problem at all"**

O. W. WHEELER,  
Maintenance Supervisor,  
Garland-Temco Plant.



GARLAND, TEXAS BRANCH PLANT



Starting in 1946 with 100 Janitrol installations, Temco Aircraft Corporation added 43 more in 1951-52 . . . 6 in 1953 to keep pace with the Garland Branch plant expansion program. Their repeat installations over an eight year period clearly indicate complete satisfaction with Janitrol quality, dependability and low operating costs.

Whether your heating needs can be met with one unit heater or 100, it's important to you that an experienced, local Janitrol contractor size and install the right equipment.

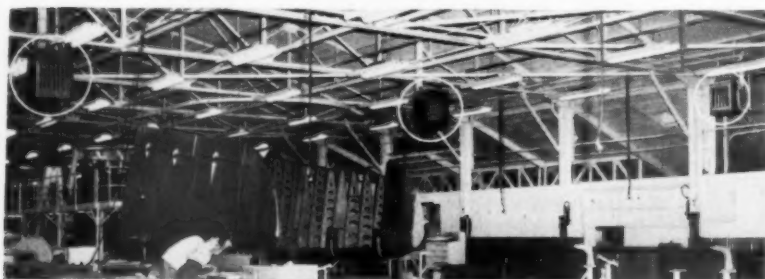
This way, you get triple assurance of efficient and economical heating. You get equipment with unequalled performance record\* . . . equipment that's properly installed . . . and backed by a responsible engineering and service organization.

Local Janitrol gas heating engineer-installers are listed under "Unit Heaters", yellow pages, your phone book.



Mr. Wheeler checks in shipment of Janitrol gas-fired units, installed as part of Temco-Garland's 1953 expansion program.

\* With over a million steel heat exchanger tubes installed since 1940, less than 1/4 of 1% have been replaced for any cause.



**149 JANITROL INSTALLATIONS SINCE 1946 PROVIDE EXCELLENT WORKING CONDITIONS AT LOW OPERATING COST**

**Janitrol**  
GAS-FIRED UNIT HEATERS

Write today for information on unit heaters for new or remodeled buildings of all types. Ask for "Businessmen's Blue Book of Better Heating".

Janitrol Heating  
& Air Conditioning Division  
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In Canada: Alvar Simpson Ltd.  
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ALSO MAKERS OF *Surface* INDUSTRIAL FURNACES AND *Kathabar* HUMIDITY CONDITIONING

since the group who have no religion at all top the others.

CHARLES ELCOCK  
CONSULTING ENGINEER  
PHILADELPHIA, PA.

## Why Prices Are High

Dear Sir:

I was much interested in the article on page 90 of the Oct. 23 issue, The Price Squeeze in Machinery.

I have been in the business of sales promotion and advertising for machine tools and heavy machinery since 1938. My family has been involved in the machine tool business since 1921—and I have seen the periods of feast and famine that the industry has been faced with during those times.

It is an unfortunate situation when a basic industry such as the machine tool industry bumps into a buyers' market such as exists today. One cannot blame the buyer for attempting to drive a hard bargain in the face of these conditions. But, nevertheless, I am wondering just how much some of these buyers who are hollering the loudest know about the machine tool business. Granted, machinery prices are up 15 to 25%—but there are a number of factors that have forced the situation.

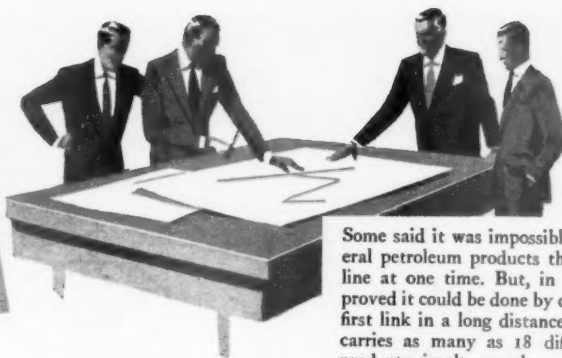
The U. S. Dept. of Labor, as of April, 1953, showed average weekly earnings in 1947 in the machine tool industry at \$57.75. Compare this with the 1952 figure of \$89.96. This represents more than 55% more money per pay envelope. While it is true the Korean war had some effect on this—during that same period, average hourly earnings went up over 37%.

Similarly, go back to 1947 and take a look at the price of pig iron—\$38.40 per long ton, out of Chicago. In 1952, that same commodity bore a price tag of \$53.75.

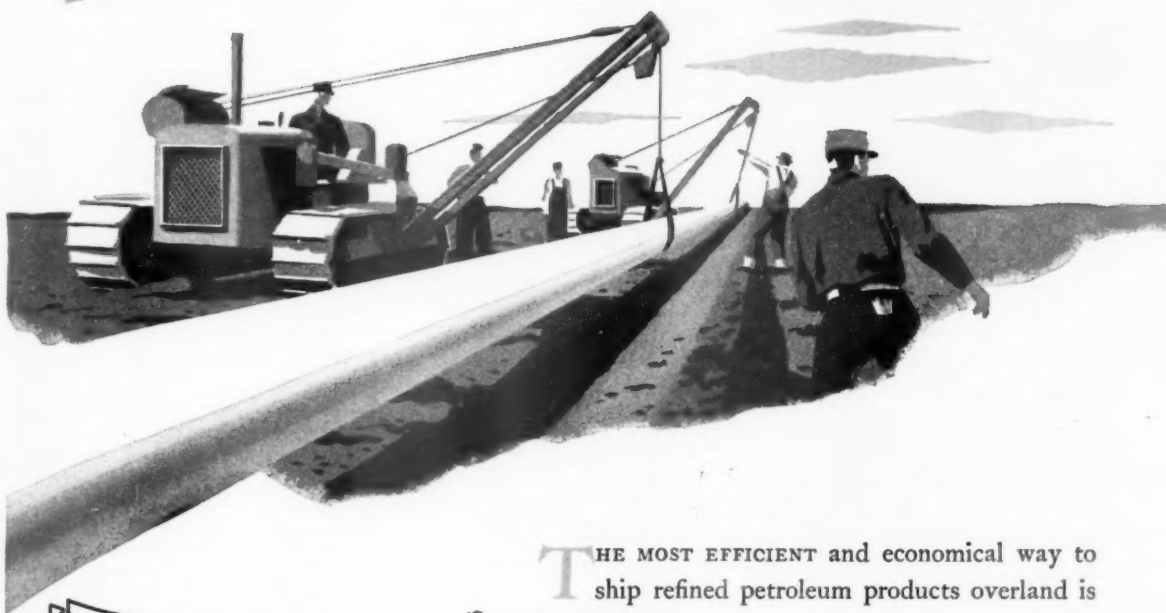
Surely the machine tool builder, as any other businessman in the U. S., cannot be expected to hold the line on prices in the face of these sharp increases in cost. In fact, it would be my feeling that machinery buyers are getting a bigger bargain today in the equipment they buy than they did seven or eight years ago. For, while machinery prices are up 15 to 25%, the cost of labor and materials is up from 37 to 55%.

What's more, machine tool buyers today are definitely getting tools that are vastly improved. For example, eight years ago—a number 2 plain milling machine was

# PIPELINE MIRACLE



Some said it was impossible to send several petroleum products through a pipeline at one time. But, in 1931, Phillips proved it could be done by completing the first link in a long distance pipeline that carries as many as 18 different refined products simultaneously.



Phillips common carrier products pipeline system extends from Phillips, Texas, to Denver, and to Kansas City, East St. Louis and Chicago. Phillips is also part owner and biggest shipper on the Great Lakes Pipe Line System, extending into Iowa, Nebraska, Minnesota and North and South Dakota.

**T**HE MOST EFFICIENT and economical way to ship refined petroleum products overland is by pipeline.

Today Phillips operates some 2,500 miles of products pipeline, having a capacity of 108,000 barrels daily, and capable of transporting at the same time such *different* products as heavy furnace oil and highly volatile Philgas.

Pipelines are laid 18 inches to six feet deep on a 32-foot right of way. Sections of the pipe are welded together electrically.



Aerial photographs are used in plotting a proposed pipeline route. After the line is finished aircraft patrol it constantly.



**PHILLIPS PETROLEUM COMPANY**

Bartlesville, Oklahoma

*We Put the Power of Petroleum at America's Service*

## Cut loading costs 25% or more with OILDRAULIC® power



### LEVA-DOCK® RAMP speeds loading dock traffic

Users report this hinged, self-leveling ramp saves up to 50% of the time required for loading and unloading at conventional docks. Supported by a hydraulic jack, it automatically compensates for

varying truck bed heights, out-of-level trucks and truck spring deflection. Reduces breakage and increases safety. Economical operation by self-contained electric power unit or compressed air.



### LEVELATOR® LIFT handles heaviest loads



Load directly from plant floor to trucks, or move materials from one floor level to another speedily and economically with the Rotary Levelator Lift. It eliminates loading docks and ramps and saves floor

space as the platform can be trucked over when lowered. Operation is safe and maintenance-free with dependable Oil-draulic Power. Capacities to 100,000 lbs. Easily installed in new or old buildings.

#### Rotary's experience can help you on lifting problems

Rotary Lift Co. designs and manufactures equipment to handle almost any heavy lifting job. Economy, speed and safety are achieved by the proper application of dependable Oildraulic Power. Among other Rotary products are machine feeding lifts, transfer bridges, lumber lifts,

and freight and passenger elevators. Skilled engineers, modern manufacturing facilities and 29 years' experience equip Rotary to solve your unusual or difficult lifting jobs. Mail coupon for literature or write our Industrial Division, describing your lifting problem.

**ROTARY LIFT CO., 1074 Kentucky, Memphis 2, Tenn.**



### OILDRAULIC® LIFTS

**MAIL NOW FOR COMPLETE DATA**  
Rotary Lift Co.  
1074 Kentucky, Memphis 2, Tenn.  
Please send literature on the ☐ Leva-Dock  
Ramp, ☐ Levelator Lift.

Name \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
City and State \_\_\_\_\_

equipped with only 7½ hp.; today, it has 10 hp.—a 33% improvement. Eight years ago, the standard working surface of the table on this machine was 56"x12"—today, it is 56"x13½", an improvement of 12½%. Eight years ago, the net weight of this same machine was 6,100 lb.; today it is 7,400 lb.—an increase of 21%. Incidentally, this increase in weight can be accounted for in the improved designs, by the increased rigidity necessary on modern machines to absorb the increased working load resulting from the higher rates of metal removal possible with the increased hp. and feeds.

Additionally, one has only to compare machine tool catalogs of five and ten years ago with those of today to see not only the many structural improvements but also the operating improvements—particularly from the standpoint of the electrical equipment on modern machines. The infinitely variable speeds and feeds of the modern machines, the simplified push button controls—the automatic compensating devices for cutting loads—all were either unavailable, or in rare instances available at tremendous extra cost eight or ten years ago. Today, many of these features are standard equipment or else available at only a slight increase in cost.

It has always been the experience of the majority of machine tool builders that their customers have, by and large, insisted on purchasing only equipment incorporating not only the latest in basic design, but also most of the "extras." Progressive shops insist that the builders keep pace with technological advantages offered by the manufacturers of hydraulic and electrical equipment. In particular instances today, the electrical equipment included on some machine tools can be valued at as much as 35% of the purchase price of the tool itself.

Looking at the consumer market today, it is obvious not only from the profit statement of the various consumer goods manufacturers, but also in the discount structures in between the manufacturer and the retail outlet that nobody is operating their business on a charity basis. Just because the machine tool industry happens to be the source for the master tools on which all other products are turned out, shouldn't mean that it is to be operated on a non-profit basis.

It is to be remembered that in periods of time where no defense



# DON'T DESPAIR!

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Your Lyon Dealer offers the world's most diversified line of quality steel equipment. (A few of Lyon's 1500 standard items are shown below.) Equally important, he can show you how to get the most out of steel equipment in terms of saved time, space and money. Why not ask him to stop in? He'll bring along a 76-page catalog full of Lyon equipment and a head full of practical ideas.

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## "Mississippians have supported us 100 per cent"



O. C. KLINGSICK  
Vice-President, Production  
DAY BRITE LIGHTING INCORPORATED

*"We selected Tupelo for an industrial lighting fixture plant in 1947 after studying numerous sites in our market area. The warm welcome we received from Tupelo citizens and from Mississippians, however, convinced us that we were wanted."*

*"The people of Tupelo have supported us 100 per cent since that time and are helping us now to double the production of our North Mississippi plant. Our present plant is located conveniently to Southern markets and a ready supply of raw materials."*

Day Brite is but one of numerous nationally known industries operating successfully in a state which offers not only a hand of welcome but which affords many other advantages of a strategic, centrally located Southern site.

These advantages include growing Southern markets, large reservoir of intelligent, cooperative labor, abundant fuel and electricity and immense stores of raw materials.

One advantage not to be found elsewhere is Mississippi's BAWI (balance agriculture with industry) plan under which political subdivisions may vote bonds to finance the purchase of sites and the construction of buildings for lease to new or expanding industries.

We invite your further investigation of Mississippi and its BAWI plan. Your request for information will be handled promptly and treated with confidence.



**MISSISSIPPI**  
AGRICULTURAL AND INDUSTRIAL BOARD  
State Office Building • Jackson, Mississippi

emergencies exist, the machine tool business [is] normally a low unit volume affair, and that prices on these tools must compensate for constant technological improvements as well as the maintenance of equipment suitable to produce to ever more exacting tolerances, and the cost of higher skilled labor to operate that equipment.

KEITH F. GALLIMORE, JR.  
ACCOUNT EXECUTIVE  
KLAU, VAN PIETERSOM, DUNLAP,  
INC.  
MILWAUKEE, WIS.

## More, Not Less

Dear Sir:

In your article, *Crowding In on Oil's Markets* [BW—Sep. 18 '54, p197] . . . you say: "In Philadelphia, for instance, gas undersells oil by 20¢ to 25¢, figured on a barrel basis."

May I correct you, and advise that in Philadelphia city gas is 30%, and in the Philadelphia suburbs 47%, more costly than oil?

LIONEL JACOBS  
LIONEL L. JACOBS & SONS  
WAYNE, PA.

• Thanks for setting us straight. We were confusing industrial fuel and domestic fuel.

## Bigger Earnings

Dear Sir:

On page 44 of the Nov. 27 issue of *BUSINESS WEEK* you published some figures of our company's earnings which are inaccurate and somewhat misleading. . . .

The earnings in 1953 of \$2.67 per share include non-recurring net income of 69¢ per share, and a footnote should have been added to that effect. If this non-recurring net income is deducted from the figure reported, it will show that our earnings for the fiscal year ending June 30, 1954, were approximately 10% greater than the previous year.

As a matter of further information, during the quarter ending Sept. 30, 1954, we have reported net earnings of 50¢ per share on our common stock as compared to 31¢ per share in the same period last year. . . .

E. L. BRUCE, JR.  
E. L. BRUCE CO.  
MEMPHIS, TENN.

Letters should be addressed to Readers Report Editor, *BUSINESS WEEK*, 330 West 42nd Street, New York 36, N. Y.

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Man  
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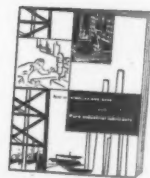


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Are old lubrication methods tying up manhours?

In most plants no more than six *Pure Multipurpose Lubricants* are needed to do the work that normally requires dozens of specialized lubricants. Speeds application. Reduces inventory. Minimizes misapplication. Simplifies lubrication and stock control. Streamlines purchasing. Why not phone your nearest Pure Oil office and see how this simplified plan can cut costs for you. Reverse the charges—and call now.



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REMOTAIRE INSTALLATION is ideal where controlled atmosphere is important as in the Kettering laboratory, above. Odors, bacteria, fungi cannot be transmitted from one room to another through this air conditioning system, which cools and heats with water piped from a central plant.

## American-Standard Remotaire

chosen by Charles F. Kettering Foundation Laboratory  
for year 'round air conditioning

■ American-Standard Remotaire is the ideal year 'round air conditioning system for multi-room installations such as laboratories, hotels, motels, apartment houses, office buildings. Each unit is individually controlled . . . each room's occupant can select the desired temperature.

*An American-Standard Remotaire system eliminates bulky ducts.* The same simple piping circuit that circulates winter warmth, delivers summer cooling from a central chilling plant. Good-looking room units can be installed free standing, partially

recessed or completely recessed.

For the best in year 'round air conditioning, insist on an American-Standard Remotaire installation. This central water system for cooling and heating is the result of years of experience in comfort-conditioning . . . and justifies the confidence of leading architects, engineers and building owners that the name American-Standard, which has always meant the best in heating, now means the best in cooling, too. **American Radiator & Standard Sanitary Corporation, Pittsburgh 30, Pa.**



THE KETTERING SOLAR RESEARCH LABORATORY on the Antioch College campus at Yellow Springs, Ohio, is a non-profit research foundation endowed by Charles F. Kettering of General Motors fame.

*Lorenz & Williams, Architects; Schweiger, Heapy & Associates, Consulting Engineers.*

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WATER HEATING-COOLING SYSTEMS



# BUSINESS OUTLOOK

BUSINESS WEEK

JAN. 8, 1955

A BUSINESS WEEK

SERVICE

Action by the Federal Reserve Board this week on stock market margins (page 27) was primarily a warning.

It wasn't very severe so far as stock trading is concerned, and it may or may not have any measurable influence on prices. But it shows that the board is watching credit, either for speculation or business.

Washington doesn't want easy money to blow up any bubbles whose bursting would impair the economy. That's the substance of it.

Of course, the 50% cash rule heretofore in effect on stock purchases would hardly be described as lenient. The rise to 60% won't affect many buyers, most of whom buy securities outright anyhow.

But it calls attention to the Federal Reserve's authority over credit. And it warns that the Administration is alert to inflation.

Many upward pressures on prices of goods are likely this year.

Already you have seen some basic advances. Cement has gone up. A move is now under way to see if cotton print cloth will stand a boost. You can hear talk about a rise for paper prices.

These are isolated. Competition will continue to work against any general price advance. But they call attention to the potential.

Steel prices are higher. An outsider would have a hard time to prove it because posted prices are unchanged. But buyers feel it. They no longer find steel mills willing to absorb freight and waive the "extras" imposed on many products that take special finishing.

Nothing but the sellers' better judgment prevented a rise of several cents a pound in copper prices this week.

With U.S. supplies still scanty due to strikes here and in Chile last year, the outlook was clouded this week by labor trouble in Rhodesia.

While domestic users don't rely too much on this African copper, lost output exerts pressure here by way of its impact on world markets.

Prices for copper in London reflect the tight world situation.

Quick-delivery contracts continue to command a wide premium over those that call for deliveries three months from now.

Fabricators of copper products in the United States had on hand, at last report, nearly three months' needs at current consumption rates.

The market, however, is swept clean for January.

McGraw-Hill's Metal and Mineral Markets says, in fact, that "some operators believe the tightness could easily extend into February."

Wages will tend to be a price-booster before so very long.

Union members were more concerned about jobs last spring than about hourly rates. There is little doubt that labor leaders will insist on larger raises this year than they got in last year's package.

# BUSINESS OUTLOOK (Continued)

BUSINESS WEEK

JAN. 8, 1955

Higher wages, of course, will increase manufacturers' costs.

Higher employment, higher wages, and more hours of work each week all will add to consumer demand and to price pressures.

—•—

**Business, for its part, hasn't been using enough bank credit to pump up any inflation balloons.**

Commercial, industrial, and agricultural loans of the Federal Reserve member banks which report each week ended 1954 about \$1-billion below the yearend peak of 1953 (and of 1952 also, for that matter).

Loans to business went up barely \$550-million in the last half of 1954 (the time of year when there usually is a vigorous expansion).

In fact, such loans went up slightly less than in the second six months of 1953—which was a time of declining business activity.

**The runoff in business borrowing from now to the seasonal low in July probably will wash the loan total down less than usual. The mere fact that business activity is rising will be one reason.**

Certainly the "seasonal decline" won't be so great as last year.

In 1954, business was repaying credits that had been used to broaden the capital base for excess profits taxation. And, as the year advanced, more and more loans were repaid from liquidation of inventories.

The first-half decline last year, in fact, totaled \$1½-billion.

**Less-than-seasonal decline in demand for business loans will, of course, help to sustain interest rates.**

However, rates already were safe. Banks, after months of struggling to avoid a cut in their "prime rate," have had no qualms since the Federal Reserve abandoned "active ease" as its money policy.

—•—

**Consumers, as borrowers, have exerted very little influence on the credit situation, one way or the other.**

Their headlong rush to buy on the cuff ended during 1953.

Total consumer credit outstanding at the end of 1954 undoubtedly was a very high figure—close to \$30-billion. But the rise over the 1953 yearend figure would be barely half a billion—whereas the previous twelve months had seen a rise of some \$3-billion.

—•—

**Motor car manufacturers topped 1954 output expectations by a pretty fair margin—even if it involved "borrowing" a bit from 1955 (page 32.)**

New car production hit 5½-million—over the top by 200,000.

If 200,000 or so cars were added to dealers' stocks, that isn't surprising for the time of year.

**Auto production is scheduled for this year's first quarter at nearly 1.9-million, according to Ward's Automotive Reports. That would be an annual rate of more than 7½-million cars—against most optimistic 1955 industry goals in the neighborhood of 5.8-million.**

Contents copyrighted under the general copyright on the Jan. 8, 1955, issue—Business Week, 330 W. 42nd St., New York, N. Y.

(Advertisement)



*Only a thorough evaluation can give you the full scope of the Pluronics' benefits. Pictured here is a test to determine the cloud point of nonionic surfactants, and a check on the melting point of Pluronic F-68 . . . first 100%-active nonionic commercially available in flake, powder or solid form.*

## What's new about the Pluronics?

The Pluronics are a new series of 100%-active nonionic surface-active agents, based on a chemical concept not previously used in the synthesis of nonionic surfactants. They provide an over-all balance of desirable properties: ease of formulation, stability, controlled sudsing, a range of surface-active properties, low hygroscopicity, dedusting properties, and a low order of toxicity.

The unusual flexibility of the Pluronics make them especially interesting . . . it is possible to prepare a Pluronic to meet any requirement of molecular weight or hydrophilic-hydrophobic balance, within the established range.

## WYANDOTTE'S AMAZING, NEW PLURONICS\*

A new series of block-polymer chemicals is changing the course of sales and profits for manufacturers of viscose rayon and cellophane, home and laundry detergents, shampoos, mechanical-dishwashing, dye-leveling and water-conditioning compounds — and the end is nowhere in sight.

For the Pluronics make it easy to formulate products that are completely dust-free, non-caking and exceptionally free-flowing; products that offer distinct advantages over competition.

## What's different about them?

The Pluronics are the first commercial example of a block-polymer-type surface-active agent . . . made from a hydrophobic polyoxypropylene base with hydrophilic polyoxyethylene groups attached to either end. This use of polyoxypropylene as the hydrophobic portion of the molecule is unique, the secret being to build a polyoxypropylene chain long enough to be water insoluble. The hydrophobic base may be varied in molecular weight, and any percentage of the hydrophilic groups can be added. The Pluronics range in molecular weight from 1800 to 8000. This compares with the usual range in molecular weight for surface-active agents of from 300 to 700.

(CONTINUED ON NEXT PAGE)

\*REG. U.S. PAT. OFF.

## What about formulating?

Pluronics are easy to formulate . . . you can choose from liquid, paste, flake, powder or solid-cast. Liquid Pluronics can be spray-blended by special spray systems, an ordinary sprinkling can, or nail-punctured drums suspended above mixing apparatus. Pluronics blend easily with common builders; permit you to compound a quality product using only solid materials.

## Where are Pluronics used?

The Pluronics are already in commercial use in water conditioning, in the manufacture of viscose rayon and cellophane, in dye leveling, shampoos, boiler-water compounds, mechanical - dishwashing compounds, home and laundry detergents, and in metal-cleaning formulations. Promising new applications are being reported continually. The Pluronics have a wide range of characteristics. For example, L62 is a good wetting agent . . . F68 is an excellent dispersing agent . . . L64 combines a balance of wetting, dispersing and emulsifying characteristics that make it exceptionally effective as a detergent. These characteristics give the Pluronics unique advantages over other surface-active agents. They merit your full and careful evaluation. Brief summaries of a few of their uses are given here.

★ ★ ★

### *Flexibility of Pluronics helpful in metal cleaning*

The field of metal cleaning is unusually complex, due to the many variables in the type of cleaning, the types of metals to be cleaned, types of soil to be removed, and the processing that metals are to receive after cleaning. Most metal-cleaning operations, therefore, require a cleaning compound designed to fit the particular process.

The Pluronics have proved especially valuable in metal-cleaning formulations for a number of reasons.

Most important, perhaps, is their exceptional flexibility. With the Pluronics, you can tailor the product to meet your precise needs.

The Pluronics are stable and effective over the entire range of pH, in both acid and alkaline solutions. The suds range of the Pluronics is wide — from no foam to moderate foam. You can choose a Pluronic, or combination of the Pluronics, with the exact sudsing characteristics you require. Another important benefit: in electrocleaning, the controlled sudsing properties of the Pluronics preclude excessive hydrogen entrapment and reduce explosion hazards.

Test the Pluronics thoroughly . . . use the coupon for more information.

### *The Pluronics control suds in laundry detergents*

Large-scale makers of laundry detergents have recently introduced compounds containing one or more of the Pluronics. Why? Because they found that the Pluronics, with their over-all balance of desirable properties, are the most versatile agents of their type available today.

Some of these properties are: controlled sudsing, ease of formulation, stability in solution, compatibility with a wide variety of materials, high detergency, and *permanent* dedusting effect with no moisture pickup.

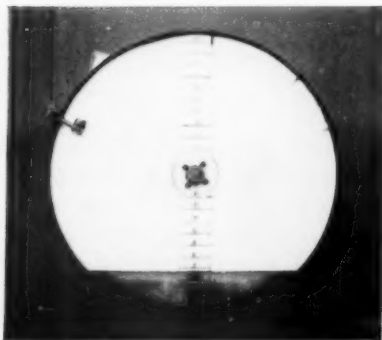
Pluronics' inherent flexibility makes it easy to formulate compounds with optimum characteristics. Suds level, carbon soil removal and whiteness retention can be varied easily to suit particular requirements.

Perhaps the Pluronics could give your product the same market advantage. Why not investigate today?

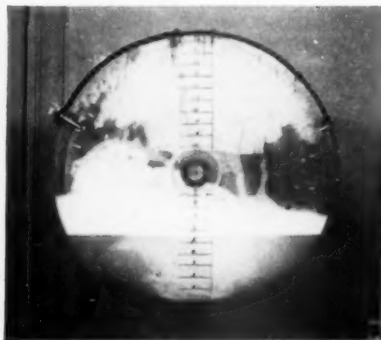
### *Pluronics important in water treatment*

Commercial usage by major producers of boiler-water compounds has proved the Pluronics to be one of the most valuable recent developments in the industry.

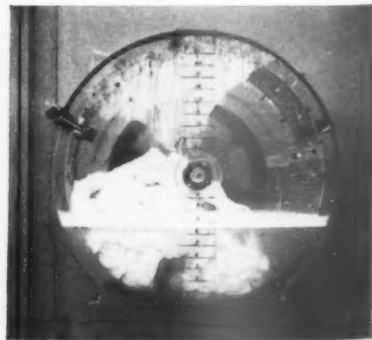
#### Compare suds levels of home detergents



*High-sudsing property of typical popular detergent.*



*Action of low- or "controlled-sudsing" popular detergent.*



*Very low sudsing of new detergent containing Pluronics.*



(Advertisement)

There are two main reasons for this: 1) their foam depressing characteristics, and 2) their exceptionally effective dispersing power for calcium and magnesium salts. Other properties of the Pluronics that have proved beneficial in boiler-water treatment, as well as in some water-conditioning applications, are: their compatibility and stability with acid or alkali solutions over a wide temperature range, and their unusually low order of toxicity.

Are these *your* requirements for a surface-active agent? . . . for more information, use coupon below.

## Pluronics improve mechanical-dishwashing compounds

Nowhere have the Pluronics played a more dramatic role than in the mechanical-dishwashing field. Here they found an almost immediate acceptance, due to their unique combination of desirable properties. The most important are:

1. An ability to eliminate staining and streaking usually caused by improper rinsing.
2. Exceptional low-foaming properties.
3. Better, more permanent dedusting effect than other surface-active agents.
4. No increase in the hygroscopicity of the compound.

No other single nonionic surfactant can duplicate this unique combination of desirable properties. Formulators using the Pluronics in their mechanical-dishwashing compounds have a distinct product advantage — a product advantage that pays off in a distinct sales advantage.

If you manufacture mechanical-dishwashing products, you should investigate the Pluronics thoroughly . . . use coupon for further information.

## What about stability?

The Pluronics are stable in both acid and alkaline solutions, even at elevated temperatures. Moreover, their surface-active properties remain relatively constant over the entire range of pH. Since the Pluronics are not precipitated by calcium or magnesium ions, their detergency performance in formulated products remains relatively uniform, regardless of the water hardness.

## What about sudsing?

The Pluronics series offers a wide range of foaming properties, enabling you to choose a particular Pluronic with exactly the sudsing characteristics you require. Pluronics L61 and L62 are essentially non-foaming, generating less foam than any other commercially available surfactant.

Pluronics L64 and F68 generate moderate foams, making them particularly useful in those applications where foam is desirable.

Pluronic L61 can be used effectively to depress the foam of any of the other Pluronics.

## What about dispersing power?

Pluronic F68 and Pluronic L64 are exceptionally effective dispersing agents for calcium and magnesium salts. The Pluronics, by keeping these inorganic salts in suspension, reduce the amount of adherent hard water deposits in boilers and pipes when used in water-treating compounds. The use of the Pluronics also renders the scale that does precipitate softer and more easily removed, due to the Pluronics' rewetting effect.

(CONTINUED ON NEXT PAGE)

## What users say about the Pluronics!

"We have found Wyandotte Pluronics valuable in our alkaline cleaning preparations, as well as in other formulations used for the preparation of metal surfaces."

**Detrex Corporation**  
Detroit, Mich.

"The addition of a small amount of Pluronics to our mechanical dishwashing compounds has overcome some problems which we have been trying to solve for years."

**Eastern Chemical Corporation**  
Reading, Pa.

"The Pluronics in our compound control the foam, provide improved rinsability, good detergency and better wetting. What more could we ask?"

**Etsol Synthetic Products**  
Detroit, Mich.

"Recently, we tested the Pluronics, Wyandotte's nonionic surface-active agents. As a result, we are now using the Pluronics in certain areas of our water-conditioning service. They have definitely been an aid to us in solving water-conditioning problems."

**W. H. & L. D. Betz, Philadelphia, Pa.**

"We tested literally hundreds of products. None of them filled the bill. Then the Wyandotte representative suggested Pluronic F68. We found it fitted our needs exactly. There is no way of measuring in dollars the value of a development like this."

**Allen B. Wrisley Co., Chicago, Ill.**

## What about rinsability?

The Pluronics provide maximum effectiveness as rinsing agents, in proportions as low as 2%. Laboratory evaluations, field tests and established commercial usage have shown the Pluronics to be superior in the promotion of free-rinsing — especially valuable in the mechanical-dishwashing field.

Staining and streaking due to improper rinsing have been decreased by as much as 90% by the inclusion of a very small amount of the Pluronics in mechanical-dishwashing compounds.

## What about dedusting?

The dedusting effect of the Pluronics is much more permanent than that of many other surface-active agents, yet products incorporating the Pluronics remain free-flowing.

The liquid Pluronics, even at concentrations as low as 0.5% by dry weight of the formulation, are effective dedusting agents. They dedust not only during the compounding operations themselves, but also the finished product.

Compounders report that many dedusting agents lose their effectiveness after a period of time, whereas the use of half as much Pluronics gives effective permanent dedusting. This superiority is believed to be due to the much higher molecular weight of the Pluronics. They have no tendency to migrate.

## What about hygroscopicity?

One of the problems of using anionic surface-active agents is the rapid increase of hygroscopicity in pro-

portion to active-agent content. This hygroscopicity is also quite apparent in many of the nonionics.

An unusual feature of the Pluronics is their low order of hygroscopicity. Not only are the Pluronics relatively nonhygroscopic themselves, but they actually decrease the hygroscopicity of other components of formulations in which they are used.

## For samples and more information . . .

The Pluronics make it easy to formulate products with optimum characteristics, products that are completely dust-free, non-caking, and exceptionally free-flowing, products with distinct advantages over competition. Evaluate them as a basis for an entirely new approach in formulating . . . the Pluronics may be the key to compounding concepts that open up new avenues of progress for your company. *But only a thorough evaluation can give you the full scope of the Pluronics' benefits.* For samples of the Pluronics, data sheets summarizing their physical and surface-active properties, and other technical and price information — call your Wyandotte representative or mail the coupon today. *Wyandotte Chemicals Corporation, Wyandotte, Michigan. Offices in principal cities.*



### HEADQUARTERS FOR ALKALIES

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tural Insecticides • Other Organic and Inorganic Chemicals

CLIP AND MAIL THIS COUPON FOR DATA AND SAMPLES.

### Wyandotte Chemicals Corporation, Dept. 22, Wyandotte, Michigan

Please send:

- ☐ Data on the use of Pluronics in metal-cleaning formulations
- ☐ Samples of Pluronics L61, 62, 64, F68 for metal-cleaning products
- ☐ Data on the use of Pluronics in home and commercial laundry detergents
- ☐ Samples of Pluronics L44, 61, 62, 64, P75, F68 for laundry detergents
- ☐ Data on the use of Pluronics in water-treating applications
- ☐ Samples of Pluronics L61, 64, F68 for water-conditioning compounds
- ☐ Data on the use of Pluronics in mechanical-dishwashing compounds

- ☐ Samples of Pluronics L61, 62, F68 for dishwashing products
- ☐ Have a Wyandotte representative call on me.
- ☐ Data on Pluronics for \_\_\_\_\_

\_\_\_\_\_ application

Name \_\_\_\_\_

Firm \_\_\_\_\_ Title \_\_\_\_\_

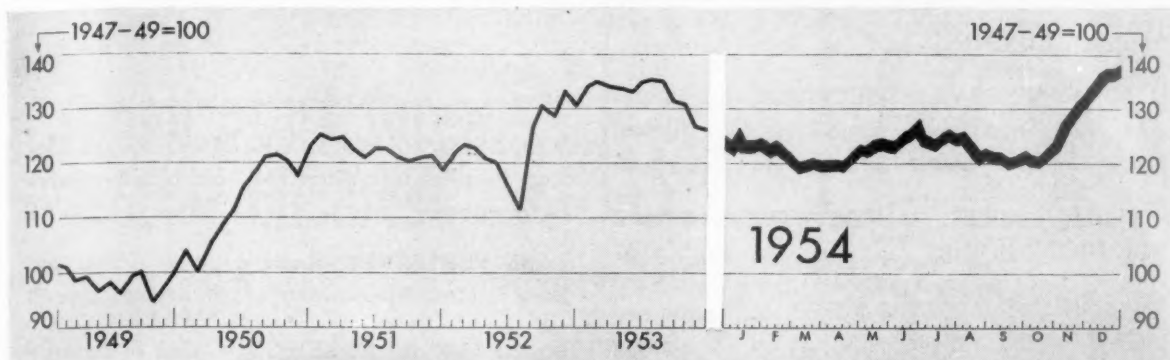
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† Revised  
BUSINE

# FIGURES OF THE WEEK



**Business Week Index (above)** . . . . . \*138.4 †137.4 134.8 124.2 91.6

## PRODUCTION

	\$ Latest Week	Preceding Week	Month Ago	Year Ago	1946 Average
Steel ingot production (thousands of tons).....	1,943	†1,850	1,958	1,798	1,281
Production of automobiles and trucks.....	148,390	†149,418	171,189	93,293	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av., in thousands)....	\$61,697	\$54,578	\$48,568	\$35,784	\$17,083
Electric power output (millions of kilowatt-hours).....	9,425	†9,431	9,612	8,198	4,238
Crude oil and condensate production (daily av., thousands of bbls.).....	6,342	6,401	6,286	6,195	4,751
Bituminous coal production (daily average, thousands of tons).....	1,661	†1,470	1,470	1,552	1,745
Paperboard production (tons).....	140,640	239,060	246,190	103,430	167,269

## TRADE

Carloadings: manufacturers, misc., and l.c.l. (daily av., thousands of cars).....	65	65	72	64	82
Carloadings: raw materials (daily av., thousands of cars).....	41	42	45	39	53
Department store sales (change from same week of preceding year).....	+16%	+3%	none	+12%	+30%
Business failures (Dun and Bradstreet, number).....	152	213	221	150	22

## PRICES

Spot commodities, daily index (Moody's Dec. 31, 1931 = 100).....	415.5	411.4	407.7	413.1	311.9
Industrial raw materials, daily index (U. S. BLS, 1947-49 = 100).....	90.2	89.5	88.7	82.9	††73.2
Foodstuffs, daily index (U. S. BLS, 1947-49 = 100).....	90.5	90.7	91.8	96.7	††75.4
Print cloth (spot and nearby, yd.).....	19.0¢	18.8¢	18.6¢	19.2¢	17.5¢
Finished steel, index (U. S. BLS, 1947-49 = 100).....	144.7	144.6	144.7	141.5	††76.4
Scrap steel composite (Iron Age, ton).....	\$34.17	\$32.83	\$32.17	\$29.67	\$20.27
Copper (electrolytic, Connecticut Valley, E&MJ, lb.).....	30.000¢	30.000¢	30.000¢	29.969¢	14.045¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.).....	\$2.47	\$2.45	\$2.51	\$2.41	\$1.97
Cotton, daily price (middling, ten designated markets, lb.).....	34.16¢	34.26¢	33.91¢	32.86¢	30.56¢
Wool tops (Boston, lb.).....	\$2.02	\$2.08	\$2.09	\$2.12	\$1.51

## FINANCE

90 stocks, price index (Standard & Poor's).....	286.5	281.1	275.1	198.5	135.7
Medium grade corporate bond yield (Baa issues, Moody's).....	3.45%	3.45%	3.45%	3.74%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate).....	1½-1¾%	1½-1¾%	1½-1¾%	2¼%	¾-1%

## BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks.....	58,445	58,025	56,414	56,217	††45,820
Total loans and investments, reporting member banks.....	86,534	86,564	85,783	80,656	††71,916
Commercial and agricultural loans, reporting member banks.....	22,486	22,423	22,214	23,380	††9,299
U. S. gov't guaranteed obligations held, reporting member banks.....	36,902	37,205	37,106	32,800	††49,879
Total federal reserve credit outstanding.....	26,371	26,481	25,965	26,977	23,883

## MONTHLY FIGURES OF THE WEEK

MONTHLY FIGURES OF THE WEEK		Latest Month	Preceding Month	Year Ago	1946 Average
Personal income (seasonally adjusted, in billions)	November	\$287.6	\$286.3	\$287.2	\$178.0
Farm income (seasonally adjusted, in billions)	November	\$13.8	\$14.0	\$15.9	\$16.9
Consumer credit outstanding (in millions)	November	\$29,209	\$28,975	\$28,760	\$6,704
Installment credit outstanding (in millions)	November	\$22,014	\$21,952	\$21,907	\$3,174
Manufacturers' inventories (seasonally adjusted in millions)	November	\$43,811	\$43,841	\$46,909	\$21,238

\* Preliminary, week ended Jan. 1, 1955.  
† Revised.

†† Estimate.

§ Date for "Latest Week" on each series on request.

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Here's a  
good start for  
better business  
in 1955



Thank your customers today  
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Thanking your customers for the business they gave you in 1954 is a nice and thoughtful thing to do.

Best of all, it works two ways. Your customers will appreciate it. And you'll find it mighty helpful in continued good relations and even better business in 1955.

Right now, at the turn of the year, is a good time to do it. And a Long Distance telephone call is by all odds the quickest and most personal way. The cost is small. The results can be big. Very big!

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Atlanta to New York . . . . .	\$1.50
Los Angeles to Washington, D.C. . .	\$2.50

These are the daytime Station-to-Station rates for the first three minutes. They do not include the federal excise tax.

CALL BY NUMBER. IT'S TWICE AS FAST.



*Regular slimline, left, gives 620 units of light. New High Output Rapid Start lamp, right, gives 840 units of light.*

# NEW GENERAL ELECTRIC FLUORESCENT LAMP GIVES $\frac{1}{3}$ MORE LIGHT THAN ANY PREVIOUS FLUORESCENT

**LIGHTS ALMOST INSTANTLY**—General Electric announces the most important advance in fluorescent lighting in 10 years: the new High Output Rapid Start fluorescent lamp. The 96-inch High Output lamp gives 36% more light than the most powerful G-E fluorescent lamp previously available.

For new installations, General Electric High Output lamps offer this  $\frac{1}{3}$  bonus of light without increasing the number of fixtures or maintenance costs.

This big increase in light, with no increase in lamp size, has been achieved through a special cathode developed by General Electric which permits a boost in lamp wattage to 100. Because the cathode is of the famous General Electric triple coil design, these Rapid Start lamps light up almost instantly. General Electric High Output lamps have a rated

life of 7,500 hours, the same as all General Electric general lighting fluorescent lamps.

A new G-E base and socket design protects the lamp contacts by recessing them. A simple push-pull sets the lamp in its fixtures.

## HAS VARIETY OF USES

The new General Electric High Output fluorescent lamp is especially suited for use in areas with high ceilings, in factories, warehouses, offices and stores. Also in store windows, showcases and other places where you want higher lighting levels in keeping with the modern trend. New fixtures designed for the G-E High Output lamp will soon be available from a number of lighting fixture manufacturers.

For information, write to Lamp Division, General Electric Company, Dept. 166-BW-1, Nela Park, Cleveland 12, Ohio.

*Progress Is Our Most Important Product*

**GENERAL  ELECTRIC**

## Bull Market vs. Washington

- The rise is worrying the Administration.
- The Fed hikes margin requirement to 60%.
- But this mild boost was not meant to be a heavy brake, and may have negligible effect
- Certainly, it was not the prime cause of the mid-week spate of selling.

As 1955 begins, the Administration faces a problem: Somehow, it must find a way to control the stock market boom without damaging the business boom in the process.

The bull market is not a docile creature. Look at its activities, for instance, in the first three trading days of the year:

**Monday:** General Motors spurted 74 points to \$105.12 on the New York Stock Exchange on rumors of a stock dividend. It led a general advance, and trading volume totaled over 4.5-million shares.

**Tuesday:** A hectic day; the market sagged and recovered. At the end of it, the Federal Reserve Board announced an increase in margin requirements. It was a small boost—raising the required down payment on stocks from 50% to 60%—but it signaled official disapproval of the pace Wall Street was setting.

**Wednesday:** A landslide of selling hit the market. The stock tape ran late on and off all day. Volume was 4.6-million shares. The market closed with the Standard & Poor's stock average off 7.14 points.

• **Change**—The Federal Reserve Board's margin boost was not the main cause of the Wednesday price drop, though its psychological impact undoubtedly played some part. The big cause of the drop, according to astute market men, was the extremely volatile nature of the market. That's shown in its wide fluctuations from day to day and from hour to hour.

As for the margin boost itself, its tangible effects are likely to be negligible, for the time being. The significance of the Fed's action is that it marks a new phase in the Administration's policy toward the bull market.

The Administration has been keeping a sharp watch on the market

ever since prices began soaring after the November elections. A month ago, it was tentatively using an "open mouth" policy—trying to talk the market into caution by encouraging reporters and columnists to write stories speculating about the possibility of government action. The open mouth was closed somewhat abruptly when Treasury Secy. Humphrey told a press conference that there was nothing the Administration "could appropriately do." This was interpreted as a sign that there would be no important government move.

• **Reasons**—But there has been an important move after all. What led up to it?

The unusually high volume of stock trading, for one thing. Apparently the Administration's gently quivering nerves twanged when each of the first two trading days of the new year saw over 4-million shares handled on the Big Board. In all of last year, 4-million-share days occurred only twice—both times in December.

Another reason for the Fed's move—the official reason—is that the amount of credit used to buy stocks has been increasing. The Fed does not want this to continue so far that there is a shortage of credit for business expansion. It points out that brokers' loans increased some 30% from February, 1953—when margin requirements were cut from 75% to 50%—to November, 1954.

The November brokers' loans, \$2.2-billion, are modest when compared to the total volume of listed stock. But the loans are rising fast—and it's the rate of increase, not the amount, that worries the Fed.

• **On Eggs**—In deciding to move in, the Federal Reserve realized it would be treading on eggs. It didn't want to do anything that might dampen the busi-

ness recovery. At the same time, because of its concern with business, it was sensitive to anything that looked like a speculative outburst. The nightmare it saw was that of a market letdown coming before business was strong enough to ignore it.

Thus, the board wanted to fly a clear warning signal for the stock market—but it must be only a signal, not a heavy-handed clampdown that might in itself weaken stock prices. The Fed remembered 1937, when its attempt to halt speculation through a general tightening of credit brought on a business slump.

Other margin changes in the past have been 25% at a whack, and the market has seldom been bothered by them—at least over the short term. This time, apparently, the board wanted to make doubly sure its change would bring no unlooked-for consequences.

• **Politics**—Some members of the board may have had one eye on Congress when deciding on the move. Democrats have talked about a "continuing study" of the stock market rise—something that could easily turn into a full-dress investigation of, and perhaps attack on, the Administration's pro-business investment tax policies. By showing an active interest in controlling the flow of credit in the market, the Fed pulls some of the stingers out of any such future investigation.

The future investigators may still argue, however, that the increase in down payments for stocks is merely a variation of the open mouth policy. It is a stronger gesture than a speech, but its effect is largely psychological rather than mechanical. Most securities in today's market are being bought with cash; the margin increase itself will not automatically brake stock trading.

• **Reactions**—On Wall Street itself, many old hands feel that the Fed's move will do nothing to throttle trading. This feeling persists in spite of the midweek price slide. For one thing, the market veterans don't consider the amount of credit buying excessive—or anywhere near it. For another, they are not convinced that the move will have its planned psychological effect. The move speaks of official worry over future stock prices. To many investors, it may seem almost a prediction of

further price increases. Hence, to these men, it could be exactly the opposite of a hand raised in caution.

Brokers, and businessmen in general, are not so worried about the credit increase as they are about the stock price trend. If prices keep going upward, they feel, the result could be a wild bull market and an eventual crash.

• **New View**—Expert observers explain the startling increase in market activity since November in terms of a basic change in the market's nature. Common stocks have been considered a safe, sound investment for the past seven years; but their prices have been constantly depressed by war, fear of war, economic uncertainty. Now, no war is being fought, and none looms in the immediate future. There's a new optimism in the air (BW—Jan. 1'55, p15).

All this has taken the lid off stock prices. In the eyes of many Wall Streeters, today's prices are not exaggeratedly high; they are finally catching up with the true value of the stocks.

• **Accordion**—The true value, as these investors see it, need not necessarily be calculated coldly according to a stock's present earnings. It can be calculated according to potential earnings, stretching far into the future. There is much calculation of this kind in the market today; one analyst calls it "accordion discounting."

Take Amerada as a case in point. Its yield is \$2; it is selling at \$225. Obviously, its price is based on earnings expected to flow perhaps five or 10 years from now out of its huge proven oil reserves.

• **Steady**—There is a good deal of activity today not only in blue-chip stocks, but also in both second-line issues and frankly speculative stocks. Many brokers say that the hunt for "sleepers"—stocks overlooked in the rush for blue-chips—appeals largely to novices in the market.

Veteran Streeters often scowl when novices enter the market in unusually large numbers. To them, it recalls 1929—wild speculation, a market out of control. But today's novices for the most part are coming into the market with cash. Many of them are level-headed businessmen who never happen to have invested before; the fabled elevator boy of 1929 is not common on Wall Street today.

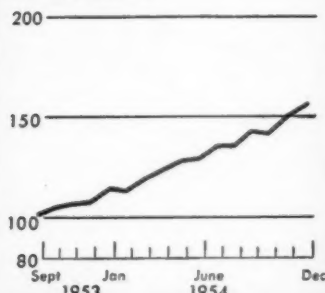
• **Weapon**—The only real source of worry to most astute market men is the rate of price increase. They see no danger in present prices themselves, but they feel the market may get out of hand if the last months' rate of increase holds.

Many of them doubt that the Fed's action in raising margin requirements will be enough to make the public restrain its enthusiasm. The Fed, apparently, intends to wait and see.

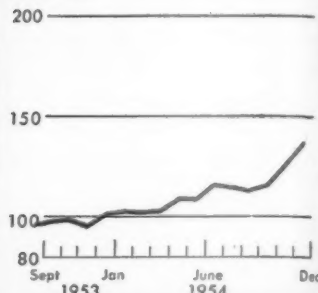
# Bull Market: Almost Even

June, 1953, average = 100

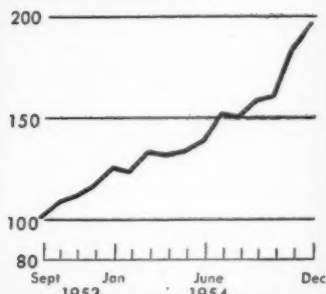
## 1. Industrials



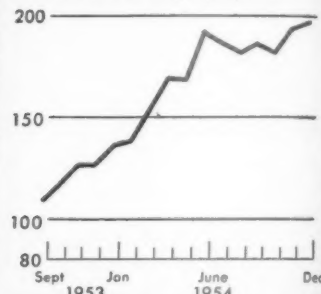
## 2. Rails



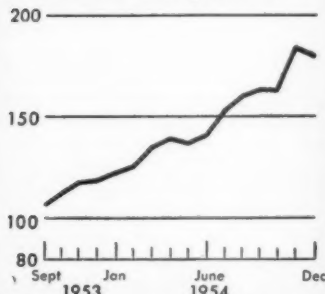
## 6. Tire & Rubber



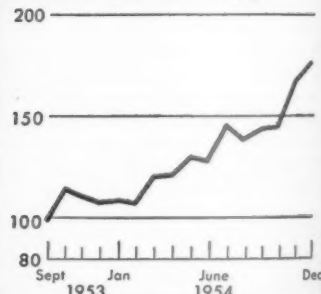
## 7. Electrical Equipment



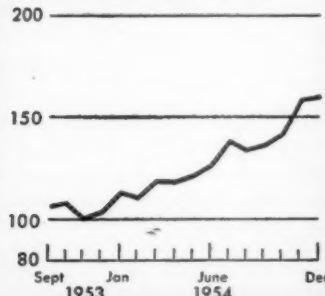
## 11. Finance Companies



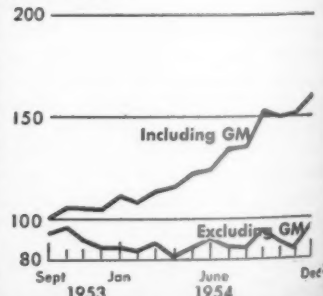
## 12. Metal Fabricating



## 16. Radio & Electronics



## 17. Autos

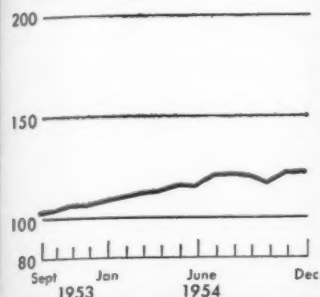


Data: Standard & Poor's Corp.

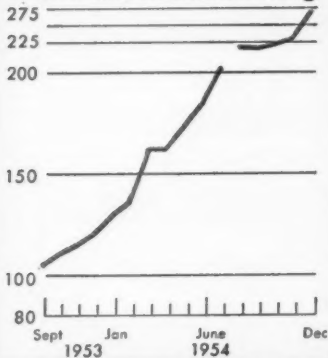


# st Every Stock Group Is In on It

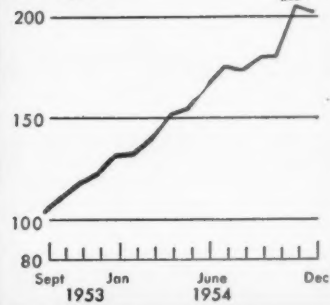
**3. Utilities**



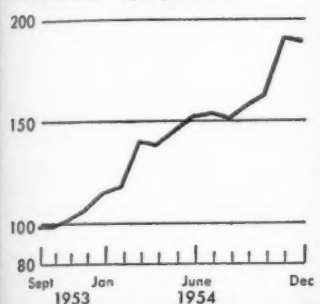
**4. Aircraft Manufacturing**



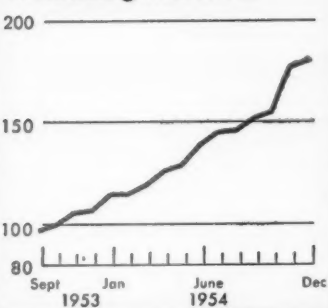
**5. Paper**



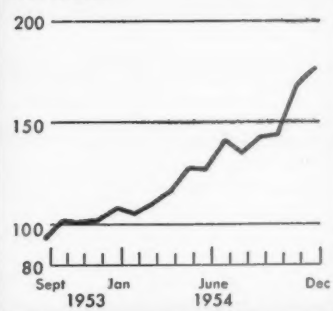
**8. Office Equipment**



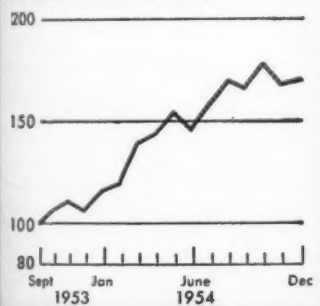
**9. Building Materials**



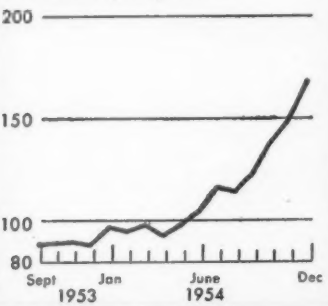
**10. Steel**



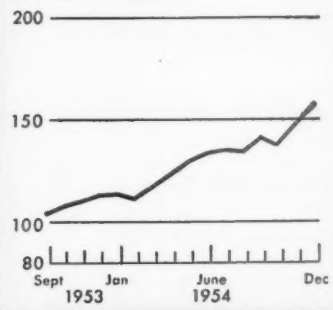
**13. Machine Tools**



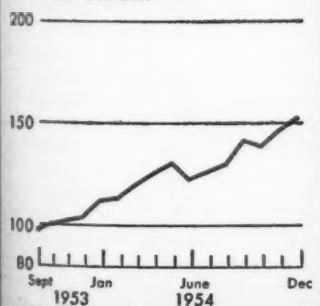
**14. Air Transport**



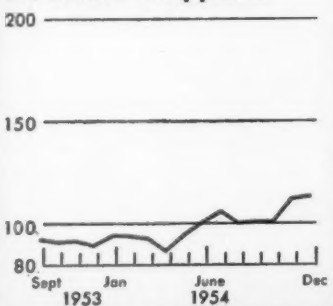
**15. Chemicals**



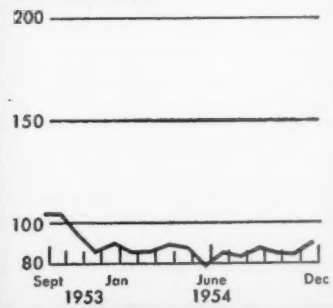
**18. Petroleum**



**19. Textile & Apparel**



**20. Tobacco**



## Congress: The MUST Legislation

The calendar of expiring laws and other deadlines in Congress:

### Expired Dec. 31, 1954—

The Renegotiation Act, which permits the government to review defense contracts for the purpose of recovering "excessive profits."

### Jan. 27—

Submission of plans to Congress for disposal of government's synthetic rubber industry.

### Apr. 1—

Authority of President to submit reorganization plans.

Termination of increased rates on excise tax on liquor, gasoline, cigarettes, automobiles, parts, etc.

Termination of 52% rate on corporation income.

### May 1—

Deadline for voting on disposal of government-owned synthetic rubber plants.

### May 31—

Final report of Hoover Commission on government reorganization.

### June 12—

Authority of President to enter reciprocal trade agreements.

### June 30—

Expiration of temporary \$6-billion increase in national debt.

Mutual Security Act (military and economic foreign aid and Point 4).

Termination of Foreign Operations Administration.

Termination of Defense Production Act authority to fix allocation and priorities for defense materials.

Authority to underwrite 35,000 public housing units.

Authority to aid construction of housing and community facilities in critical defense areas.

Aid for school construction in areas impacted by federal installations.

Small Business Act and Small Business Administration.

### July 1—

Authority to draft 18½-to-26-year olds into the armed forces.

©BUSINESS WEEK

## Democrats Will Stop There

The Democrats took over control of Congress this week, and barely had set up shop when Pres. Eisenhower delivered the first of a series of messages—the State of the Union—laying out the program that the Administration will push.

But the key to the legislation that the new Congress will actually enact, lies in the above table of laws that will expire during the year.

The reason is this. Despite what Eisenhower asks of Congress and what the Democrats say they want, Congress isn't likely to do much more than it has to the first session. That means just acting on expiring laws and providing money to run the government for another year.

• **Preliminaries**—High on the Democratic agenda will be efforts to make political capital out of defense spending,

the Dixon-Yates contract, Secy. Benson's farm policies, the Administration's internal security program for government workers, and what the Democrats term big business favoritism. Action on many of the expiring laws will be colored by partisan debate arising from these issues.

The air will be hottest with political oratory during the month or so it will take the new Congress to get organized. The Democrats are sure to set up investigations through which they can focus the spotlight on GOP policies of the past two years. Then they will be willing to get down to work, and will turn to legislation—but with an eye to getting away by mid-July at the latest.

• **Tug of War**—When that stage comes, the Democrats won't be having everything their way. The party alignment is too close. There will be plenty of

pulling and hauling over issues, which are far from being stacked in favor of the Democrats.

One point on which they will be able to embarrass the Administration is the failure of a large segment of Republicans to go along on its trade policies.

There is a good chance that the Democratic leadership will let other issues that divide the Republicans come up for debate—the Bricker Amendment to restrict executive treaty-making power, for one. This consumed more than a month last session, with Senate conservatives led by Sen. John W. Bricker pitted against Administration supporters.

But other issues can be just as embarrassing for the Democrats and just as divisive for them: Taft-Hartley, statehood, minimum wages, FEPC, closure, school construction, and home rule for the District of Columbia. These will throw the spotlight on any cracks and crevices that develop in Democratic unity.

• **Tactics**—The stakes are high in this Congress for the side that hits on the best tactics. Eisenhower's fate in 1956 may well hinge on the way he handles the 84th Congress. His advisers won't let him forget Truman's success in 1948 in exploiting the record of a Republican Congress.

On the opposite side, one of the unanswered questions is where the Democrats will concentrate their fire, and how heavily they will attack Eisenhower personally. They are split on how to deal with the President.

Many Democrats feel their only chance of winning the presidency in 1956 is to discredit Eisenhower's leadership and chip away at his tremendous popularity that spills over party lines. To do that they will have to start aiming their shafts directly at him.

This approach is favored by Democratic National Chmn. Paul M. Butler, House Speaker Sam Rayburn, and most of the liberal wing of the party. Senate Democratic leader Lyndon Johnson doesn't go along, takes great pride in the fact that there were few personal attacks on Eisenhower by Senate Democrats last session.

People like Rayburn, however, don't advocate any broadside attack on the Administration. The Speaker favors concentrating shots on special issues such as Dixon-Yates, big business "favoritism," and GOP "giveaways."

• **Defense Problems**—One of the major issues the Democrats are sure to raise is defense. Action here will be keyed to the expiration of the Draft Act on July 1, and to the size of the military budget. This will be one of the most politically volatile packages Congress will handle this session. It combines draft extension with a hard look at defense cutbacks.

The Democrats express concern over the Administration plan to cut the armed forces by over 400,000 men. They plan searching inquiries in an effort to learn whether GOP budget-balancing took precedence over military considerations in preparation of the Eisenhower program.

Democratic leaders are asking whether the proposed program will be adequate. The military committee chairmen, Sen. Richard B. Russell and Rep. Carl Vinson, will hold Defense Dept. officials to a close accounting of military proposals.

The modified Universal Military Training proposal will also get a hard look. Some Democrats who have supported the controversial UMT approach to military training in the past feel that the new program—calling for training 100,000 young men a year and then putting them into the Reserve—has not been fully thought through.

• **M-Day Planning**—Another defense area where the Democrats will ask questions is the coordination of manpower planning with industrial mobilization. So far, the industrial end has been handled by the Office of Defense Mobilization under Dr. Arthur S. Flemming, while manpower planning has been under Defense and Selective Service—with no dovetailing.

The Democrats want to know whether the military or industry gets the skilled or semiskilled defense veteran, when M-day comes. They say that little thought has so far been given to this, and suggest it is a question that cannot be delayed until M-day arrives.

• **Power**—Making more headlines, perhaps, than defense will be the controversial Dixon-Yates contract, with all its impact on the public vs. private power issue. It will occupy the Joint Committee on Atomic Energy, utilities investigating groups in both House and Senate, and the Appropriation Committees. Democrats are united in regarding the contract as a heavy blow at the Tennessee Valley Authority and at federal power development.

New Sen. Richard L. Neuberger of Oregon will be conspicuous in the overall power fight. He's being billed by Democrats as the man who beat Eisenhower's follower, Guy Cordon, on the power issue exclusively.

• **Farms**—Another big plank in the Democratic platform last fall was agricultural price supports at 90% of parity. Many Democrats think more hay can be reaped from this issue in 1956, when scheduled reductions in minimum price guarantees will heighten interest. But Speaker Rayburn is determined to give the legislation a whirl this session. A White House veto would set it up for another airing in 1956.

## Steel Licks Its Chops

Production, earnings, stock prices all point upward for 1955. There are two dark clouds: wage costs, a possible auto strike.

The steel industry started the new year in high spirits. No matter where it looked—at production, at capacity, at the prices of its securities, at its earnings potential—everything pointed up. That led to some pretty optimistic talk among steelmakers this week because, while 1954 wasn't a really good year, it hadn't been really bad.

Optimism ranged from U.S. Steel's forecast that ingot output would be 95-million tons—about 74-million tons above last year—to Jones & Laughlin's only slightly hedged estimate of 111.9-million tons. Mostly, however, the industry figured production at close to 105-million tons, or about 83.4% of installed capacity. In 1954, production was almost exactly 70% of capacity.

• **Prospects**—Whatever the percent-of-capacity operations in 1955, the industry won't have to cope with the problem it faced last year. Then, when output was falling, capacity was up 6.8-million tons over 1953. In 1955, with orders rising, ingot capacity will be up only 14-million tons over last year, to a total of about 126-million tons. Almost entirely, that represents capacity scheduled for addition several years ago that had not been completed at the end of 1953. And almost entirely it represents "rounding out" of existing facilities, rather than the erection of new steel melting capacity. So it will be easier for steel to show an attractive operating rate this year than in 1954.

Four producers—Bethlehem, Inland, McLouth, and U.S. Steel—added most of the new capacity last year. The electric arc furnace accounted for relatively more of this increase than did the open hearth furnace.

• **Recognition**—What probably pleased steelmakers most of all last year was the way Wall Street treated the industry's common stock. For years, steel has complained that the market undervalued its securities, making it hard to raise the capital it will need just to hold its relative position against the population growth predicted for 1975. But Wall Street is making up for this indifference. The year's high for the 10 leading producers averaged 73.4% above the year's low common stock price, and all 10 closed the year practically at their highs.

• **Thorns**—Actually, 1955 brings the steel industry an outlook just rosy enough to make you want to start looking for thorns. And you don't have to look far to find them.

The most obvious is wage costs—the industry's second-largest expense item. The basic steel contracts contain a wage reopening clause this year. With both the industry and the nation's economy moving ahead briskly, you can only assume that the United Steelworkers will want a pay raise. And if business begins to fulfill the predictions, you can assume they'll get it.

A wage increase, moreover, raises the immediate prospect of price increases. The industry raised prices last July—in the face of a steadily declining operating rate—and made the higher charges stick. But there are rumblings that steel will have a harder time putting over any increases this year. Fabricators weren't too happy with last year's price boosts, and in several large steel-consuming industries there is considerable resistance to increases. In the last analysis, of course, the man who must have steel pays what it costs him to buy it.

Adamant resistance to a 1955 price increase could embarrass the steel industry. It's one thing to institute a general price hike, but, in steel, it's something else again to make it stick—particularly in a period of less-than-capacity operations. What happens this year will depend on the market when—and in the months following—a new increase is made.

• **Trouble Brewing**—That gets you into the midsummer status of steel's biggest customer—autos. Detroit, of course, is as optimistic as can be about the forthcoming year. But nobody is sure yet whether Walter Reuther and his United Auto Workers really will strike in support of their flat demand for a guaranteed annual wage. Detroit takes 20% of steel's output. If Detroit closes down next summer, steel will be hard hit.

However, even if the industry's largest customer is struck, there'll still be strong markets to be served. Construction, which had a pretty fabulous year in 1954, expects an even better year. The tinplate market, too, looks better than ever; it has one major growth factor that hasn't yet been fully realized—the use of cans for bottled soft drinks.

These, along with autos, are steel's most promising 1955 markets. But even if the others—with the exception of the railroads—do no more than match their 1954 pace, the industry will be in fairly good shape.





FORD dealers raced neck-and-neck in 1954 with . . .



CHEVROLET dealers for the No. 1 auto sales spot.

BUT NO ONE MAY EVER KNOW

## Who Sold the Most Cars in '54?

Chevrolet Motor Div. of General Motors Corp. seldom misses an opportunity to point out that, for many years, more people have bought Chevrolets than any other U.S. make of passenger car.

It is more than a mere matter of pride with Chevrolet. It is perhaps the strongest pillar of a multimillion-dollar advertising campaign.

Ford Motor Co., whose Ford car last outsold the Chevrolet in 1935, has gone through the years with a burning desire to uproot the pillar and cart it away for Ford promotional purposes. Last year, 1954, Ford may finally have done it.

Nobody is sure of the results as yet. All anybody knows is that the decades-long race was close and frantic in 1954, that it developed during the year into the roughest competitive battle in the auto industry's history. The official sales figures will not be available until the middle of February. But *BUSINESS WEEK* reporters, talking to dealers and motor vehicle authorities throughout the country this week, found that preliminary figures in the majority of big cities give the edge to Ford.

• **Indicators**—Chevrolet outproduced Ford in 1954 by a score of 1,414,365 passenger cars to 1,394,762. But there were thousands of 1953-built cars in dealers' inventory when 1954 began, and there are thousands of 1954-built cars still unsold. This makes the pro-

duction figures unreliable as indicators of sales volume.

A more reliable indicator, and one that has been accepted as accurate in the past, is a count of new-car registrations in the states. R. L. Polk & Co., a private reporting service that Detroit regards as its official statistician, traditionally makes such counts each year. According to Polk, Ford led Chevrolet in sales during the first 10 months of the year by an edge of roughly 22,000 registrations.

But Ford is not yet claiming victory, and Chevrolet is far from admitting defeat. The last two months of the year saw feverish selling that will weight ponderously in the full-year calculations.

And in the last weeks of the year, competition for the No. 1 sales spot grew so white-hot that it led to what one observer has called the "final, magnificent frustration." It led to a practice called padding, or padding. By its weird mechanics, Polk's registration figures may be rendered unreliable as sales indicators. The magnificent frustration is this: It may turn out that nobody will ever know, for certain, which company really won the historic 1954 race.

• **Mechanics**—Listening their way through the nation's cities this week, *BUSINESS WEEK* reporters heard much talk—sometimes good-humored, sometimes outraged—of padding. It works like this:

A Ford or Chevrolet dealer, realizing the promotional value of a No. 1 sales ranking for his make of car, decides to do his bit toward boosting the national figures. As 1954 draws to a close, he takes some cars that he does not expect to sell within the year and registers them in his own name, or in those of his salesmen or family or friends. Thus, the cars, though not sold, will show up in Polk's registration count as sales.

The dealers of each make of car accuse their rivals of doing such padding on a vast scale. A Chevrolet man in Georgia says that one Ford dealer he knows of pre-registered about 100 cars. A California Ford man claims a Chevrolet dealer registered 65 to 75 cars to himself shortly before New Year's Day.

• **Refinements**—In some cases, you hear stories of even greater ingenuity. Both Ford and Chevrolet dealers in one Kentucky city claim the rival company has sent engine and serial numbers to dealers so the cars can be registered before they are even assembled. A Canadian Chevrolet dealer says dealers in the U.S. have been pre-registering cars twice each, in two states. In Boston, dealers are alleged to have registered armadas of cars in the names of fictitious fleet owners. In other cities, customers are said to have been granted concessions in return for pre-registering cars not yet delivered to them.

Most dealers say that the Ford and



Chevrolet companies themselves have played no part in this activity, and indeed are outraged by it. Ford has sent a letter to dealers and state officials saying that it wants sales leadership, "but not by a crooked count."

Said one morose dealer in St. Louis this week: "We know we outsold them, but we may have been outregistered."

• **Sales**—While all this has been going on, both Ford and Chevrolet dealers have enjoyed booming sales in almost every major city. A Ford man in Milwaukee this week called 1954 the best year of his 37 in the business; a Toledo Ford dealer called it his best in 25; a Little Rock Ford man called it his best in 20, and December the best month of his entire career.

A Chevrolet dealer in San Francisco headed into 1955 with seven cars in inventory instead of his normal 70 to 80, and with a backlog of 45 unfilled orders. Another Chevrolet man started the new year with 200 orders and an inventory of "virtually nothing." An Atlanta Chevrolet man says his December sales and profits were 10 times what they were in the same month of 1953.

This has been accomplished with big trade-in allowances and, in some cities, sharp price cuts—but not so big or sharp as to be disastrous for the dealers. "People had money," says an East Coast dealer. "I had to fence with them a little, but I didn't have to give the cars away."

The same report comes from almost every city. Competition throughout the year was hot, but dealers depended more on heavy advertising than on wild price tactics to fight the battle. In a few cities, dealers resorted to unusual sales gimmicks; a Ford dealer in St. Louis, for instance, handed customers each \$200 in Christmas cash. But this was, in effect, merely a cash payment for the customer's trade-in car.

• **Who Won?**—In most cities, Ford and Chevrolet dealers are equally sure they won the 1954 sales race. In cities where there is a difference, it is usually the Chevrolet men who are least optimistic.

Preliminary figures give the 1954 victory to Ford in roughly two-thirds of the cities covered by the survey. However, Ford's edge is extremely thin in some of these cities; and in others, the figures are either incomplete or obtained from unofficial sources.

What of the 1955 race just beginning? Here again, dealers of both makes are equally optimistic in most cities. They recognize the threat represented by Chrysler Corp.'s Plymouth, a car in the Ford-Chevrolet price field poised for a determined push in 1955. But Ford dealers are sure the Plymouth will cut into Chevrolet's sales, not Ford's. And vice versa.

## Bank Flirtation

**Signs point to Chase and Bank of Manhattan as merger candidates. Result would be nation's second biggest bank.**

The second biggest bank in the country may result from current merger talks between officials of the Chase National Bank of New York, the nation's third largest, and the Bank of the Manhattan Co., the 16th largest.

The banks are reportedly renewing merger plans that foundered three and a half years ago because Bank of Manhattan's 156-year-old charter requires 100% stockholder approval to sell its assets to another bank. This block would be overcome by having the two banks merge under Bank of Manhattan's state charter rather than Chase's national charter. Such a move would require assent of only two-thirds of Bank of Manhattan's shareholders.

• **Chase Not Talking**—Chase officials refuse either to confirm or deny the merger rumors. Bank of Manhattan's president, J. Stewart Baker, says he has nothing to add to his Dec. 7 statement: "There have been conversations concerning the possibility of other banks merging into or selling their assets to Bank of the Manhattan Co., but as yet nothing definite has come of them."

• **Gains**—The merger would create a new bank with deposits of \$6.9-billion and resources of \$7.6-billion. It would shove National City Bank of New York, currently ranked behind San Francisco's Bank of America, into third place in these vital statistics. At year-end, National City had deposits of \$5.6-billion and resources of \$6.3-billion, while the giant Bank of America shows deposits of \$8.3-billion and resources of \$9.2-billion (page 84).

The idea of the merger is somewhat like that of last summer's consolidation of the Chemical Bank & Trust Co. and the Corn Exchange Bank Trust Co. (BW—Aug. 21 '54, p30). In that case, the Chemical bank was eager to get Corn Exchange's extensive branch-banking system. In the Chase-Manhattan move, the 57 New York City branches of Bank of Manhattan would be principal prize. Like Chemical, Chase undoubtedly figures that the cost of duplicating such a system, which would dovetail nicely with its own 28 city branches, would be prohibitive.

• **Sensitive**—Even before the rumors were confirmed, the possibility of the bank merger came under fire from Rep. Emanuel Celler (D.-N. Y.), who will be chairman of the House Judiciary Committee in the new Congress. Said Celler: "If this merger comes off,

it would be a violation of the Celler anti-merger act [Sec. 7 of the Clayton Antitrust Act]. The act prevents mergers that substantially lessen competition in any section of the country. . . . This merger is exactly that. It would operate to the detriment of small bank borrowers."

Celler stated that he believed the Justice Dept. has jurisdiction in such cases, but Stanley N. Barnes, head of the Antitrust Division, pointed out that Sec. 11 of the Clayton Act specifically gives the Federal Reserve Board authority to enforce Sec. 7 where it applies to "banks, banking associations, and trust companies." In the last big government case against bank mergers—the Transamerica case that started in 1949—the Federal Reserve Board attempted to prove that Transamerica had violated Sec. 7 by acquiring a string of banks in five Western states.

Celler says his Judiciary Committee will investigate if Justice Dept. approves the Chase-Manhattan merger.

• **Stock Reaction**—Meanwhile, effects of the merger talk were felt in the prices of the stock of the two banks. At the beginning of this week, Chase stock was quoted at a bid of 60½, compared with 56½ a week previously. In the same period, Bank of Manhattan stock moved from 47½ to 52½.

## Chrysler Building Plan Heralds Wide Expansion

A major facilities expansion and modernization program is taking shape at Chrysler Corp. The announcement of a new manufacturing building at the Chrysler Div. plant in Detroit is believed to be merely the first step.

Long-range, Chrysler's program probably will involve new branch assembly plants for Plymouth Div.—which now does assembly work only at Detroit, Evansville, Ind., and Los Angeles.

For the short run, expansion will take the form of adding capacity in almost all divisions for subassembly and parts work—which in the end makes possible a higher rate of final assembly.

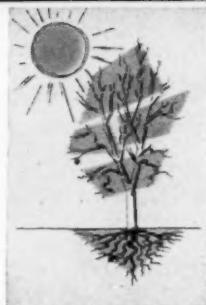
That's what's to happen in the Chrysler Div. expansion announced last week. The new building will be used for body subassembly and painting. By increasing body production from 54 to 75 an hour, it will enable the final assembly line to step up from about 800 cars per day to 1,200.

At current construction costs, indicated expenditure for the building will be something under \$10-million. The program for all divisions might run well over \$100-million—arousing speculation that Chrysler will have to obtain new capital.

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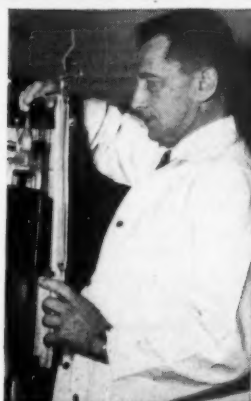


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Dr. Arnon isolates chloroplasts, finds they can do what the plant does outside the living cell



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**RADICAL** new concept in agriculture without soil or plants

**RISE** in the economic importance of desert and tropical areas

**USE** of solar energy to run factories and heat homes

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# Using Sun to Make Food

Last week's meeting of the American Assn. for the Advancement of Science at Berkeley, Calif., heard the first announcement of the potentially tremendous scientific advance illustrated above. So far-reaching are the possibilities that—if the first results prove out—it may in time outrank the splitting of the atom as this century's major contribution to mankind.

What Dr. Daniel I. Arnon (picture), professor of plant physiology at the University of California, and his col-

laborators have succeeded in doing is in essence this: They have taken apart the engine in green plants that produces starch and sugar, and kept it working for a while outside the plant.

The existence of photosynthesis, the process by which the green plant takes in water, carbon dioxide, and sunlight to produce starch and oxygen, has long been known. But it was previously thought that the chloroplasts, the tiny particles containing the green pigment or chlorophyll, just made the oxygen.

Dr. Arnon's work shows that they also produce the starch and store energy in the form of phosphorous compounds.

• **Caution**—There's many a long step, of course, as Dr. Arnon emphasizes, from achieving the formation of carbohydrates in chloroplasts isolated from the living cell, and bringing to commercial reality the harnessing of sunlight to create abundant food out of carbon dioxide and water.

The first reaction of other biophysicists and biochemists to Dr. Arnon's announcement is extremely cautious. One of the ground rules in basic research is that a discovery is never really discovered until someone else has verified it.

So far Dr. Arnon has not published any report that other scientists can study and compare with their own work. With more than 50 major photosynthesis projects currently under way in this country and abroad, there is always room for question as to priorities in discovery.

• **Next Step**—But, starting from Dr. Arnon's announcement, the next step—which he and his collaborators are now working on—is to gain a complete understanding of all the factors that make the chloroplast keep on working outside the cell. So far they have identified three: vitamin C (ascorbic acid), vitamin B2 (riboflavin), and vitamin K (antihemorrhagic factor). There probably are others.

After the process has been completely diagrammed, they will be ready to try to devise a way of operating photosynthesis outside plants without chloroplasts.

• **Energy**—You can see the possibilities in that when you consider that all the energy we use—except for roughly 5% derived from water power, windmills, atomic fission or fusion—has at some time been stored by photosynthesis in plants.

Nearly three-fourths of this energy came to the earth as sunlight ages ago, and was eventually stored in coal, oil, and gas deposits. The rest, including all food energy, made its 8-min. journey from the sun recently—most of it in the last year or so.

There has been much renewed attention of late to attempts to harness solar energy directly. The discovery of extracellular photosynthesis, however, has its main promise in reducing dependence on soil and plants for food. Even desert areas, oversupplied with sunlight but short on food, might become huge food reservoirs.

Dr. Arnon and his associates have been studying the detailed mechanics of photosynthesis for six years, with support chiefly from the University of California, and later contributions from the U.S. Public Health Service and Office of Naval Research.



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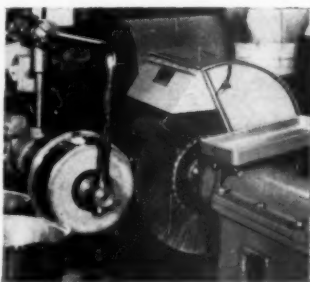


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## BUSINESS BRIEFS

**Wages of U.S. workers** in November scored their biggest monthly gain of the year, jumping to an annual rate of \$287.6-billion from October's \$286.3-billion. The wage rise was the biggest factor in the \$1.3-billion increase in over-all personal income for the month.

**General Motors** plans to raise \$325-million with a new stock offering. Stockholders will be given a chance to buy one share of the new offering for each 20 they hold now. No price has been announced, but outsiders figure it will be about \$73 a share, compared with \$97 at midweek. Meanwhile, Federal Trade Commission Chmn. E. T. Hawrey opined GM was already too big, but offered no cure for the ill.

**Off the hook:** Pennsylvania's unemployment compensation fund (BW—Jan. 1 '55, p22) stayed well above the legal peril point as 1954 ended. As a result, employers in the state will continue to pay taxes based on experience-rating, instead of having to pony up a uniform 2.7% of payroll.

**Famines amid the plenty** of 1954 are noted by Dun & Bradstreet. D&B says business failures for the year totaled 11,220 (with Dec. 31 unreported), a steep rise for the third straight year. In 1953, there were 9,058 failures; in 1952, only 7,638.

**Uncurbed coffee:** A Senate Banking subcommittee has voted against urging curbs on trading in coffee futures. The group was set up to investigate soaring coffee prices (BW—Oct. 16 '54, p32) and the suggestion that futures trading be put under the Commodity Exchange Authority. Any such action will now await the outcome of U.S. negotiations with Latin America to curb price fluctuations.

**Hurricane hangover** is besetting New England property owners. Windstorm insurance rates have been jacked sharply, in the wake of the record claims that followed the depredations of the notorious Carol, Edna, and Hazel (BW—Jan. 1 '55, p61).

**The Fore River shipyard** of Bethlehem Steel has been awarded a Navy contract to build a special offshore radar tower. The multimillion-dollar job will provide work for more than 2,000 employees at the Quincy (Mass.) yard, which has been hit by a shortage of contracts.





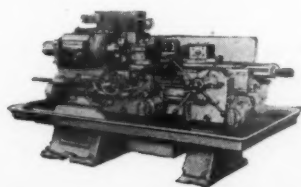
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# WASHINGTON OUTLOOK

WASHINGTON  
BUREAU  
JAN. 8, 1955

A BUSINESS WEEK

SERVICE

Look for a round of sparring between Democrats and Pres. Eisenhower before political lines are drawn in the new Congress. Politeness is the vogue, of course, in the opening days of the New Year. But at the same time, both sides are probing for weaknesses (page 30).

Democrats already show up as still angry at the White House. They resent what they regard as Eisenhower's endorsement of "soft on Communism" campaign charges by Republicans last fall, particularly the speeches of Vice-President Nixon. Speaker Sam Rayburn counsels Democrats never to "forget or forgive" what Nixon said about the Democrats' being a party of "treason."

More important to businessmen, Democrats taking control of the two houses and the committees are suspicious of "Wall Street business." The stock market boom is a case in point. Sen. John Sparkman, new Chairman of the Senate-House Economic Committee, is going to investigate the "runaway market." He has been gathering data for the last two months.

Last-minute efforts of the Federal Reserve Board this week, one day before the Democrats took over Congress, to dampen the boom by raising margin requirements, won't deter the committee (page 27). Wall Street is too good an issue to ignore.

Eisenhower's State of the Union message laid the groundwork for the contest, whether there'll be a fight or a conclave. Democrats responded quickly on one major issue, foreign trade, by buying it. For the rest, the Democrats in the next few weeks will be taking their stand as bosses, not hired hands.

Investigation of utilities is high on the Democratic list. Speaker Sam Rayburn, author of the New Deal law that broke up holding companies, figures that there's been "lax administration" of the law under the Republicans.

Rayburn's man, Percy Priest, will head the inquiry as chairman of the House Interstate Commerce Committee. The Dixon-Yates issue, fathered by the Administration in the TVA area, will be the vehicle.

The Administration's planned cut in Army manpower may tip off the most serious split with Democrats in Congress of any issue of the session. Chairman Richard Russell and Carl Vinson of the Senate and House Armed Services committees oppose the 400,000 cut in soldiers, and intend to try to block it. Army Chief of Staff Gen. Matthew Ridgway is primed to testify that the Administration's decision was made over Army objections.

Congress will go along with the increase in defense appropriations, figured to total around \$35-billion, up from this year's \$30-billion. The new money will maintain the \$33-billion spending level ticketed for fiscal 1956 and beyond. Efforts to restore manpower to the Army may come in considering the money bill.

There's uncertainty over taxes. Eisenhower and the Democrats agree on the big issue of continuing the 52% rate on corporation income. And Democrats will back the Administration on continuing the war-born excise tax rates that also expire Mar. 31.

TV manufacturers want an excise reduction. They're lining up support from their home-state congressmen.

# WASHINGTON OUTLOOK (Continued)

WASHINGTON  
BUREAU  
JAN. 8, 1955

There's pressure for a cut on autos and parts, too. Dealers are telling congressmen that a price reduction brought on by a cut in taxes would boost sales. Truck and bus makers want a drop in their tax as well.

Added up, these reductions would cost the Treasury money. So don't count on them. And that's the same argument that a lot of Democrats, including Sen. Harry Byrd, new chairman of the Senate Finance Committee, use against another Eisenhower tax recommendation: cutting the rate on income earned abroad from 52% to 38%. Byrd says, "We can't afford to lose the money."

Standby price-wage controls are expected to be sought by the Administration when the Defense Production Act comes up for renewal in Congress. That's a turnabout of position. When the law was extended two years ago the White House frowned on efforts to write standbys, and they were tossed aside.

Dispersal of up to 40% of military production away from the 70 most critical "target" areas has been set as a goal by the mobilization planners. They doubt they can do that much, but feel that under the new procurement policy (BW—Dec.18'54,p25) they can get a good start. The goal was set after a private government study showed that 75% of military and supporting production would now be concentrated in 22 cities if war came. The new procurement directive allows premium contract terms for geographically dispersed and high-cost producers.

The Reuther-Meany meeting in Washington was staged to get CIO-AFL unity "back on the track." AFL chief George Meany had been disturbed by reports that Walter Reuther was putting up new obstacles to the merger. Reuther discounted them, assured Meany he was ready to go ahead with working out details at a unity committee meeting in Miami, Feb. 8 and 9.

A tougher "no discrimination" clause is being put into government contracts. Firms selling to the government must now agree they will not discriminate against Negroes and other minority groups on these stipulated counts: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or dismissal, rates of pay, training or apprenticeship. These put teeth into the old clause.

Some early findings on rearranging government functions will be coming soon from the Hoover Commission. They won't be final, but "task force" reports will be made public before the commission wraps up its package for Eisenhower and Congress to chew on.

Federal lending policies of the Small Business Administration, the Housing Agency, and the Veterans Administration will be among the first of the reports released. Watch them. They'll tip off the amount of "welfare state" the conservative Hoover Commission figures we should have.

Private vs. public power is due to come in February. That study group is headed by Adm. Ben Moreell. The group has been all around the country gathering information. Gossip is that it will frown on further expansion of the Tennessee Valley Authority.



**NEWS** for those who run



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## LABOR



**WORKING** Marian Narcum, sole support of a family of three, works at a sewing machine for Country Cousin Frocks.

**L**UZERNE COUNTY, PA., is typical only of a very small section of the U. S. Other areas with which it may be compared are likely to be, as Luzerne is, richly endowed with coal deposits. Yet even so, because Luzerne's hills are seamed with anthracite, its hardships are extreme. The depression that has afflicted the coal industry generally since 1948 has had a longer history and taken a sharper bite in anthracite.

Thus the anthracite towns have had bitter and protracted experience with unemployment. Its impact on the communities—social, economic, and political—has been profound. And just as important, though less well known, has been its impact on traditional folkways and patterns of family life. What has happened in a Luzerne County town such as Plymouth, scene of these pictures, suggests what might occur in places elsewhere that have to adjust to large-scale male unemployment as the long-term prevailing norm.

One of the most striking developments in Plymouth has been the reversal of male and female roles. Many wives of unemployed miners have found jobs in the needle shops that have migrated from New York.

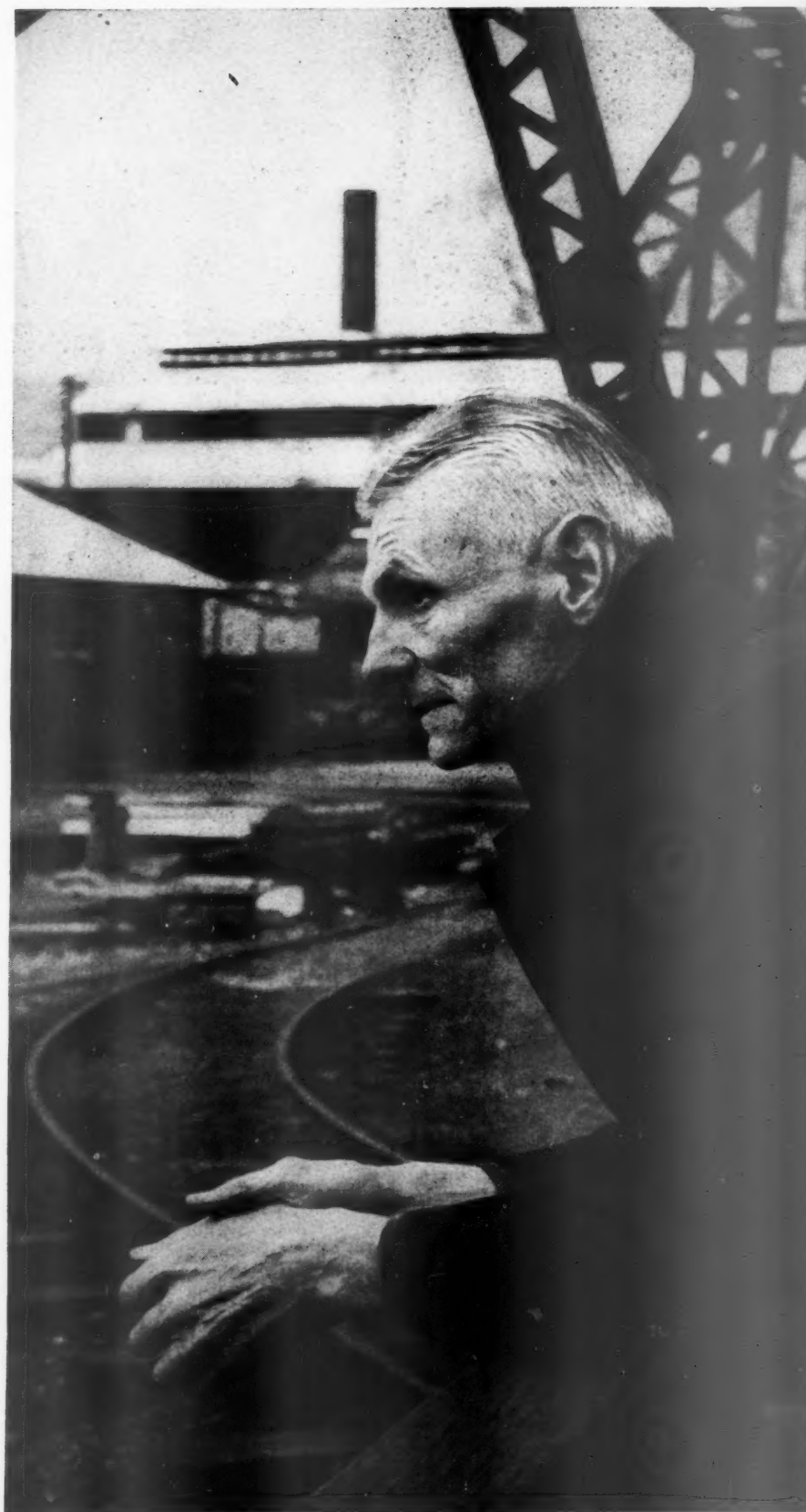
Like many another miner's wife and mother, Marian Narcum is now her family's only breadwinner. Her husband, Walter, has had to take over her home responsibilities. The pictures on these and the following pages tell their story.

## Living with Unemployment in a Co





**JOBLESS** Obsolete as a coal miner — and maybe as a wage-earner—Walter Narcum has exchanged roles with his wife. For a close look at the family, turn the page.



## a Coal Town



**5:45 a.m.** Mrs. Narcum stokes up the furnace.



**6:30** Walter Narcum and his wife reverse the traditional morning roles of man and woman. He serves breakfast; she eats quickly.



**7:30** Narcum gathers mop and vacuum cleaner, starts housework.



**10:30** He does his shopping for the day in the local supermarket.



**11:00** He makes his almost daily trip to colliery where he worked.

## When Jobs Disappear

(Story starts on p. 44)

The pictures on these pages show what can happen to a man, his family, and his community when the industry in which they have built their lives gets into trouble.

Coal ran into trouble after World War II—trouble largely in the form of competition from oil and gas. Today, coal towns in Pennsylvania, West Virginia, Ohio, Illinois, and Kentucky are struggling with unemployment. Hit hardest is the anthracite area in northeast Pennsylvania, centering around Scranton and Wilkes-Barre. Higher production costs of anthracite have made the bite even deeper in this area than in the bituminous regions.

Hard-coal mines have been shutting down steadily since the end of World War II. Anthracite production has slipped from a high of 62.1-million tons in 1944 to 43-million tons in

1950, 29.7-million tons in 1953. Estimated production for 1954 is between 20-million and 22-million tons.

And the bottom has not yet been reached. Francis O. Case, president of Glen Alden Coal Co., estimates the industry will stabilize at between 15-million and 17-million tons.

• **Courting Industry**—There is hope in sight, however. Efforts are being made to soften the economic impact on the hard-coal counties of Lackawanna, Luzerne, Schuylkill, Carbon, and Northumberland. These counties all have heavy unemployment—running to 15% of the total labor force.

The problem is that these counties have little industry to sop up the surplus male labor. The lack of industrial opportunity for men in the area is laid at the door of the coal companies—many of which, until recent years, op-

posed bringing in industries that would compete for manpower.

Now, industry is being courted. So far, however, that hasn't provided jobs for the 16,800 unemployed men in, for instance, Luzerne County.

• **The Wives**—Job opportunities for women in the area have softened the unemployment blow and can be credited with preventing a repeat of 1939, when the relief load in the county was \$1-million a week. Today, the relief load in Luzerne is running at a rate of \$458,000 a month. One big difference is that when the husband loses his job in the mines, his wife is often able to find work in an apparel or textile plant. Such is the case with Walter Narcum and his wife (pictures).

This is possible because of the fact that while industry using male workers was being discouraged, plants using



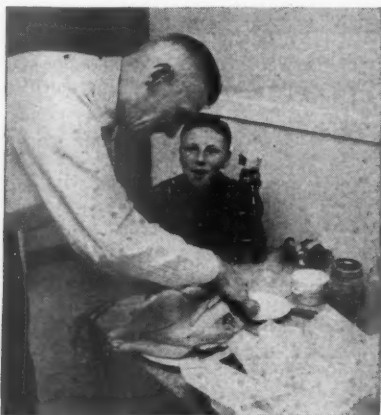
**7:00** Mrs. Narcum is off to work. Narcum kisses her goodbye.



**7:15** Narcum now has another breakfast to serve—this time for his son, Walter, Jr. Breakfast eaten, Narcum sends the boy off to school.



**11:30** Home with the groceries, he goes in to prepare lunch.



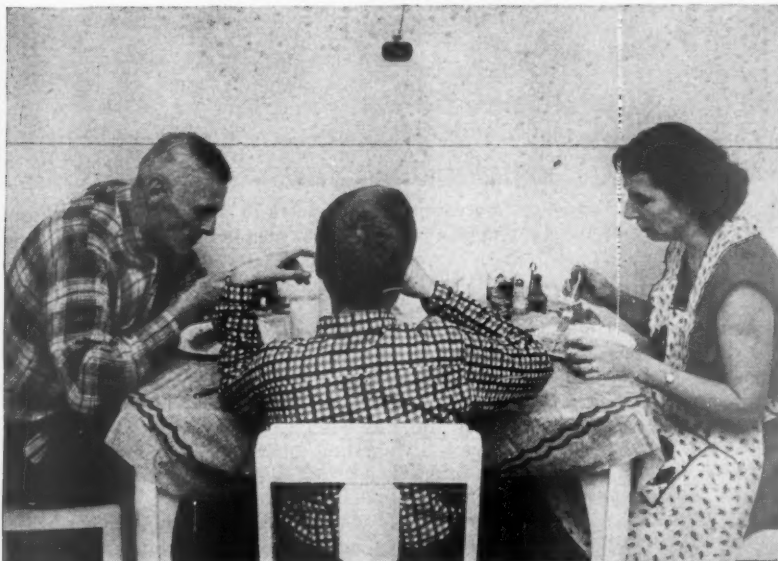
**12:05 p.m.** Son eats; Narcum starts supper.



**2:00** He seeks work, as he did yesterday and will again tomorrow.



**3:00** In a store with former workmates, he finds it easy to smile.



**4:20** The Narcums sit down to supper, only meal of the day they eat together. They eat early, for Mrs. Narcum needs time for household chores.





**5:00** Narcum and his son retire to the kitchen to take care of the dishes, while . . .



. . . Marian Narcum washes and irons, does various household chores that are still too much for her husband.



**8:15** Young Walter reads a newspaper over his mother's shoulder. He has no interest in following his father into the mines, thinks he would like to be a priest. He is an altar boy at a local Catholic church.

## Unemployment (contd.)

primarily female labor were attracted into the area. Lackawanna County has 136 apparel plants, employing 9,750—roughly 90% women. In Luzerne, 14,100 women work in over 100 apparel plants, 3,200 in textiles.

• **Roles**—With the wife the breadwinner, what happens to the unemployed husband?

In countless instances he has had to take over the woman's role in the home—as Walter Narcum has.

It's a role the man—heavy on old-

world traits and used to being the boss—doesn't particularly like. But there is little he can do about it.

If he has worked in the mines for as long as 20 years, his chances of getting satisfactory employment are almost nil. The available industrial work goes to younger men.

If the unemployed man has silicosis ("miner's asthma")—and most miners do have it in varying stages—he is a marked man, and no other industry will touch him. But he can't collect disabil-

ity unless he is flat on his back. So few miners—even with third-degree silicosis—collect disability while they are alive.

• **Life**—What's left for the unemployed miner?

He keeps paying his union dues into the United Mine Workers—\$1 a month if unemployed—in hopes of collecting pension benefits at age 60. But the hard-coal miners are getting disillusioned about their pensions—originally \$100 a month, but now cut to \$50.

He registers at his local U.S. Em-





**8:00** The family finally has a period for relaxation. The Narcums have no television set; their evening is spent with newspaper and radio.



**8:30** The father, mindful of his new role, takes over the mother's concern with bedtime. He jerks his thumb toward the bedroom.

ployment Service office for work. Wilkes-Barre last month had 17,826 people hunting jobs. He can collect unemployment compensation for roughly six months. Then his only hope for income is odd jobs. So the miner with a wife or daughter who can get a dress factory job at \$40-odd a week considers himself lucky.

• **Tensions**—What's the sociological impact of this reversal of roles?

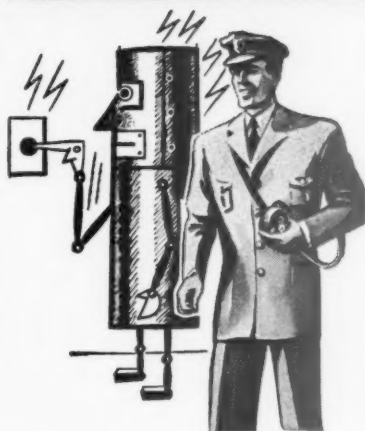
Raymond Bartow, director of the Luzerne County Public Assistance Pro-

gram, says it magnifies discord, creates tensions, and is breeding a second generation of public relievers.

Mrs. Min Matheson, manager of the two International Ladies Garment Workers Union locals in Luzerne, says it is too early to measure the long-term consequences. But one consequence is already apparent, she says: "It's demoralizing to the man, leads to more drinking."

It's rough on the children, too. They are confused by the reversed roles of

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their parents, begin to wonder who is the "Daddy" of the family. The reversal breeds delinquency; the father often doesn't keep the children in line so well as the mother. And it puts a brake on family growth.

The woman has become more and more independent. She is becoming the dominant force in the home. And she is playing a bigger role in community affairs. But it is an independence she doesn't relish.

"It's one thing to have an independent income if your husband is working," said an ILGWU chairlady (equivalent of a shop steward), "but it is no fun being the breadwinner."

• **Remedies**—Many coal communities are doing their best to reverse this trend. One town, Wilkes-Barre, has launched what it calls "Operation Jobs." It is spearheaded by a civic-minded "Committee of 100," which concerns itself with trying to attract industry to the area.

Its biggest lure is Crestwood Industrial Park, a 1,500-acre site located 8 mi. from the heart of Wilkes-Barre.

## New Congress Eyes NLRB

**Democrats eager to scan activities of labor board since GOP gained a majority. Two posts are vacant: General Counsel and one member.**

When the 84th Congress comes to grips with Taft-Hartley in the weeks ahead the fireworks won't be over the law itself, but over the agency that administers it.

Pres. Eisenhower's promised amendments to the labor law are too minor in scope to satisfy either management or union officialdom, and therefore will evoke little enthusiasm from a majority of legislators. But the Democratic-controlled Congress, with initiative centered in the Senate Labor Committee, is planning a look at the personnel and policies of the National Labor Relations Board.

• **Timeliness**—Both the Democrats and their labor allies believe NLRB is wide open for critical examination. The timeliness of the investigation stems from these factors:

• The board, under a Republican majority the past 18 months, has turned out a score of decisions upsetting the interpretations of the old Democratic-manned agency.

• Two vital NLRB posts are now vacant. One is the General Counsel, who has sole authority to initiate unfair labor practice cases. The other is the fifth board member who becomes the "swing man" between two GOP appointees and two Democratic holdovers.

• The absence of a General Coun-

Two companies have located in Crestwood since 1952: Foster Wheeler Corp., employing 350 men; and King Fifth Wheel Co., construction for which began last spring, and which will employ 150. Some 1,200 acres of industrial sites are left.

A half-dozen more nationally known firms have moved into other locations in the Wilkes-Barre area since 1952, bringing new jobs to around 4,000.

In Scranton, U.S. Hoffman Machinery Corp. began making shell cases for the military in September. It employs 800 now, hopes to reach 1,550 eventually. Also new in the Scranton area: Daystrom Instrument Co., specializing in gunfire control equipment for the Navy, employing 1,000; W. L. Maxson Corp., making calibrating machinery for the military, employing 1,000.

• **King**—But even with diversified industry, coal still is king in the area. It provides 40% of payroll in Luzerne County. There can be no real comeback until anthracite gets up off the floor.

sel has blocked the NLRB from processing charges of T-H violations by employers and unions, and held up the board's injunctive processes that could bring them to a halt. The urgency of filling the post will bring the whole NLRB issue to a head on Capitol Hill.

For the past two weeks, since the expiration of George J. Bott's term as General Counsel, the board has been restricted to processing representation petitions. Processing of charges of unfair labor practices, such as a union's complaint of refusal to bargain or an employer's charge of an illegal secondary boycott, have been halted at the counsel's office.

• **Pressing Charges**—The General Counsel's post is separate from the board. The counsel has sole authority to decide the merit of a charge and to bring it before the board members. And he is the only one who can delegate that authority to subordinates.

When Bott departed, the board members took the only action permissible. Associate General Counsel William O. Murdock got the responsibility for representation cases and liaison with government agencies. His counterpart, David P. Findling, got the job of enforcing board orders in the courts.

Meanwhile, the board members are processing the backlog of all types of



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cases. This backlog is heavy enough to keep the members going for months. New unfair labor cases will be held in abeyance for the new General Counsel.

The post is expected to go to a Chicago attorney, Theophil C. Kammholz, if Eisenhower's recommendation gets through the Senate. The President first sent Kammholz's name to the last Congress. It took no action, and the attorney declined an interim appointment, preferring to wait for Senate approval.

• **Lawyer**—The board member's post is still up in the air, but the reported front runner is Dwyer W. Shugrue, a former administrative assistant of New York's Sen. Irving Ives now practicing law in New York. Apparently, former Sen. Robert Upton of New Hampshire, who had support among several fellow

legislators, is now out of the running.

CIO's action in attacking Upton—before there was any official White House word that he was the choice—indicated the scrutiny any candidates will face from labor. CIO Secy.-Treas. James B. Carey, who heard of the senator's backing, issued a public statement condemning the reported selection.

More of the same criticism from unions, and possibly from some management groups, could be expected for Kammholz and Shugrue, if the latter is finally picked. Both are members of law firms representing industry, a point about which union leaders are expected to be vocal. At the same time, their views are considered middleroad enough to stir up opposition among conservatives, too.

• **Last Minute Rush**—A rush of rulings

designed to beat Beeson's departing date came while the board could still have a three-two majority (BW—Dec. 25'54,p63).

These decisions, and a score of others in which the board overturned policy of the agency during the Democratic Administration, are due to be investigated by the Senate Labor Committee. Labor unions are champing to attack the rulings, which range from new jurisdiction rules, through additional employer free speech guarantees, to a tightening of representation rules.

Now, with the board divided once again, there's likely to be little important policy decided. Before Beeson joined the board, some 15 cases were held up by a tie vote and decisions fell off by 40% in the absence of a fifth member.

## How to Regulate Union Welfare Funds

Pioneering New York study is in now, with recommendations for new laws. Others may use it.

The rapid growth of union welfare funds since 1949 has been phenomenal. Within five years, they have grown to cover many millions of workers, to cost employers about \$4-billion a year, and to hold combined assets estimated at more than \$20-billion.

The accelerated development of welfare plans, administered largely by labor-management committees lacking real experience in the field, created disturbing problems for federal and state authorities. Abuses and improper practices have cropped up; in some places, racketeers have moved in on union welfare funds (BW—Feb.13'54,p164).

• **New York Probe**—Shortly after the murder of a New York labor leader in 1953 called attention to the sordid background of welfare fund corruption, Gov. Thomas E. Dewey ordered a state probe of union-administered funds.

Last week, just before Gov. Dewey left office, the New York investigators reported—the first in any state to do so with legislative recommendations. The state's new Democratic administration will probably base proposals to the Republican legislature on the report. But its importance won't be limited to that. Other states, and the federal government, have had their eyes on New York's 17-month probe. It's highly probable that recommendations now on the desk of Gov. Averell Harriman in Albany will be echoed in many of the other 43 states that have legislative sessions this year.

The report is signed by former Gov. Dewey's superintendent of insurance, Alfred J. Bohlinger, but was prepared

by Adelbert G. Straub, Jr., deputy superintendent. It comments that the investigation by the State Insurance Dept. "leaves no doubt as to the serious nature of the problem (of abuses in the operation of union welfare funds) and the urgent necessity for legislation." The absence of state regulation of self-administered welfare funds now jeopardizes "the interests of the millions of beneficiaries of welfare funds," the report adds.

The Straub report recommends a two-way attack on welfare fund abuses. It suggests:

• A "code of fair practices of commissions, fees and allowances" paid by insurance companies, to prevent "excessive commissions and allowances" and to outline "conditions under which, and the persons to whom, such fees may be paid." For instance, payments to union and welfare fund officials, employees, and members of their families would be barred.

Noting that disclosures of maladministration of some welfare funds brought proposals for statutory commission payment limits, the report recommended against "the imposition of inflexible standards" which, the State Insurance Dept. said, would "tend to stifle the salutary competition" in the different types of services.

• State supervision of welfare funds, requiring (1) the registration of welfare funds with the State Insurance Dept.; (2) annual statements from fund trustees; (3) examination of every plan as often as state examiners "deem it expedient, but at least once every five

years," and (4) "comprehensive annual reports" to contributing employers and covered employees.

The report also asked for a declaration, by statute, of the "fiduciary responsibility of trustees to administer plans for the benefit of employees, their families and dependents." It recommended that the state require fund trustees to report the names of all persons who received compensation of any kind under the fund, and the amounts paid.

• **Federal Probes**—Reports haven't yet come out of probes into welfare fund racketeering by House subcommittees headed by Rep. Samuel McConnell, Jr. (R., Pa.) and by Rep. George Bender (R., Ohio), or by their Senate counterpart (BW—Feb.27'54,p142).

Unofficially, though, Congressional probes have gone on record with statements that (1) while most welfare funds are "administered well and honestly," there is evidence in many places of "maladministration, extortion, kickbacks, and racketeering"; and (2) present federal laws are "not adequate to safeguard interests of individual workers."

• **Union Attitude**—Unions are equally disturbed over welfare fund abuses, but so far insist that additional governmental control isn't necessary—labor can police its own funds. However, the CIO at its annual convention in Los Angeles last month took this position: Any prosecutions based on not-to-be-tolerated fund improprieties, or any federal or state laws aimed at curbing fund abuses, should take into consideration the findings of probes that spotlight abuses existing as a result of the practices and policies of employers and insurers, too.



## LABOR BRIEFS

**In state legislatures:** AFL has filed two initiative petitions aimed at Nevada's "right to work" law, one calling for repeal of the statute banning compulsory unionism, the other to legalize the union shop. If the legislature fails to act on an initiative issue, it is—by law—placed on the ballot at the next general election. . . . The Kansas Anti-Discrimination Commission intends to ask the legislature to tighten the state's fair-employment-practices law, adopted in 1953. The commission says it has "met with a complete impasse" in trying to process cases, particularly those involving state agencies.

**A wage adjustment** by United Auto Workers (CIO) locals in Mack Mfg. Corp. plants in Plainfield, New Brunswick, and Bridgewater Township, N. J., and Allentown, Pa., modifies Mack's formula for computing incentive pay to bring it into line with those of rival companies. The adjustment is expected to save the company an average 16¢ an hour in incentive pay.

**Chicago's AFL teamsters** paid \$25,000 for a 45-passenger bus, to be furnished free, with a uniformed driver, to organizations arranging trips for crippled children, aged men and women, and others who find it hard to get around. Money for the bus, equipped with special safety and comfort features, was contributed by 25 locals representing 135,000 workers.

**A no-raid pact** between the Brotherhood of Teamsters (AFL) and Retail, Wholesale & Department Store Union (CIO), covering 12 Midwestern states, may lead to joint organizing drives in retail and wholesale fields. Max Greenberg, president of RWDSU, says the unions have also agreed to "explore the possibility of joint action" to unionize store workers.

**AFL transit employees** in Tacoma, Wash., have taken over the company for which they work—Tacoma Transit Co.—under a plan whereby they will buy all outstanding stock at \$6 a share by payroll deductions over 3½ years. Revenues will be shared among employees and added to their stock-purchase payments. Company executives will be retained by the 250 "owner-employees," and an employee committee will work with them.

**CIO shoe workers** who asked for a 5% wage boost by 57 Massachusetts firms (BW—Dec.25'54,p62) this week agreed to accept a new one-year contract continuing 1954 wage scales.



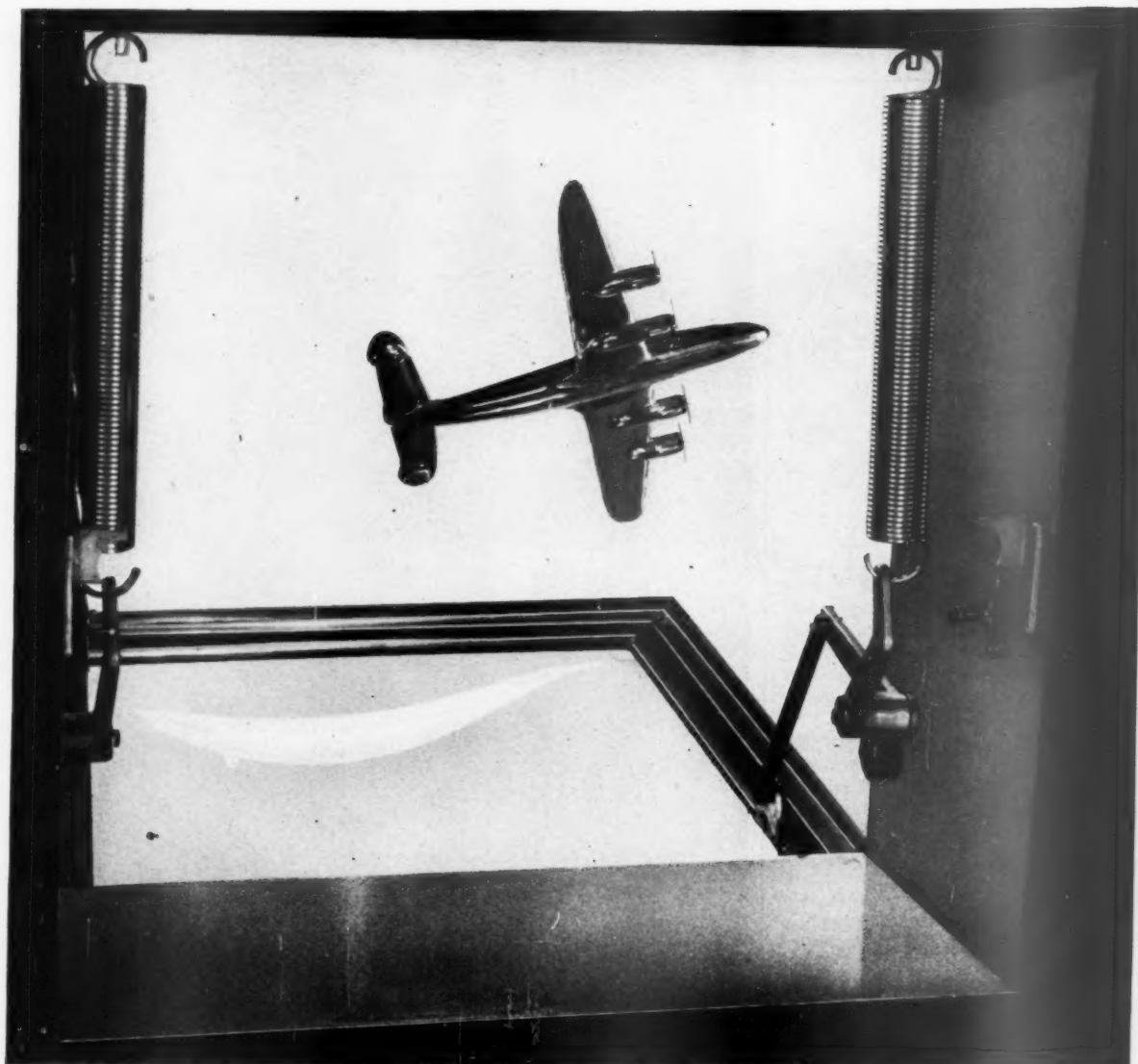
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## LOCAL BUSINESS

### A Better Toll Trap

**DES MOINES**—The Iowa Highway Commission is going to get five miles of hard-surface roadway bought and paid for by a New York investment banking house.

The road, which will cost upwards of \$200,000 to surface, is a gravel stretch that links Highway 275 with the Iowa end of the Bellevue toll bridge across the Missouri River. Built two years ago to handle an estimated 800 cars a day, the bridge has turned out to be something of a neglected wonder. Only about 100 cars a day have traveled across it and, with skimpy toll revenue, interest on its bonds has been in default.

• **Protecting an Investment**—Shields & Co., the senior firm in negotiating the bridge bond sale, has tried to get Iowa to surface the access road on the theory that this would improve traffic—and toll—volume. But Iowa was short of funds, and ultimately Shields found itself up against the fact that if resurfacing was to be done, it would have to do it. Last week its offer to pay the cost was accepted by the highway commission.

Cornelius Shields, one of the partners in the firm, feels that "the responsibility for the bond issue was still ours, no matter what initial success it had." The firm had sold the issue to several of its customers, notably one big insurance company. "We obviously had to try to do something about the defaulted interest," Shields says, "though I'll admit what's happened makes you wonder whether we're in the bridge business or the securities business."

### Flight Fight

**ANCHORAGE**—The biggest rum-pus in Alaska since the wrangle over statehood has broken out as the result of a report that the Civil Aeronautics Board has voted to eliminate Pacific Northern Airlines and Alaska Airlines from their routes between Alaska and the states.

CAB itself has said nothing about the matter, but American Aviation Daily carried a story that the vote had gone against the airlines. Apparently that was enough. Merchants, public officials, and trade associations in both Alaska and the Pacific Northwest started a campaign to put pressure on Pres. Eisenhower and CAB Chmn. Chan Gurney to reverse the decision. Pacific Northern's own employees, numbering about 400, have set up

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The story of size range, available metals and fabrication is crisply told in Wolverine's Statement of Scope. Write for a copy—today.

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*Manufacturers of Quality-Controlled Tubing  
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committees in various cities and have already raised \$2,000 in Anchorage and another \$1,200 in Seattle-Tacoma to finance a fight of their own.

• **Ships Beached**—At the moment, the only passenger service to Alaska is by air; ships stopped carrying passengers last year. If CAB actually did vote against recertification of the two airline routes—and that decision stands—only two certificated carriers will be left in the field: Pan American World Airways and Northwest Airlines. Northwest, itself, is in a fight to hang onto its route.

## Updates

**COLUMBUS, O.**—It looks as if Marion Township—or at least a chunk of it—may become part of Columbus, whether it wants to or not.

Marion was one of several townships that spurned an invitation to join Columbus last November; at the time, its voters decided that they wanted their own incorporated village, not annexation (BW—Nov.13'54,p64). Last week, however, the county commissioners decided otherwise.

By a 2-to-1 vote, they approved a petition to annex a 168-acre tract, the county's richest industrial section, to Columbus. In the words of attorney Robert P. Barnhart, "They took the heart out of Marion Township."

In turning over the \$10-million-valued tract to Columbus, the commissioners acted on a petition by the only two resident property owners in the area. The nine industries that were involved had no official say, but business leaders were strongly pro-annexation.

At this point, one of Marion's citizens has gone to court to get an injunction to stop the transfer.

**CINCINNATI**—The "bus club" became a reality here last week.

The charter bus plan that Cincinnati Transit Co. hopes will get riders out of autos and onto buses again (BW—Nov. 27'54,p57) had its inaugural the Monday after Christmas. Three buses cruised through suburban Mt. Lookout, picking up commuters in front of their doors. The first passenger, Arthur E. Rothenberg, got a free newspaper, a handshake from company executives, and a 25-min. ride to the door of his office building.

For the first week, the plan was free. But from now on, commuters who want "private" service with a guaranteed seat will pay \$10 a month for membership in their club, plus 10¢ for each ride to and from a central downtown point. The company figures that with 50 to 60 regular riders, it can make the plan pay.





## Don't be a target for WINTER AILMENTS!

The raw and chilly months of winter used to be dreaded because of the serious health threats that came with them. Pneumonia, for instance, was especially feared.

Just a few years ago, this disease claimed one out of every three of its victims. Now, fortunately, the threat of pneumonia is much less serious because the sulfa drugs and antibiotics are so effective in most cases.

Pneumonia is still dangerous when treatment is delayed. This was shown in a recent study of 15,000 cases. The case-fatality rate was *twice* as high for patients treated after the fourth day of illness as for those treated earlier. This is why you should call the doctor immediately when you suspect pneumonia. When treated promptly, pneumonia can usually be cured in a surprisingly short time.

What can you do to escape becoming a target for pneumonia? One of the wisest things is to take proper care of yourself when you have a cold. In nine out of ten cases of pneumonia, colds occur before pneumonia develops.

Should you "come down" with a cold, stay at home and rest in bed, eat lightly and drink plenty of liquids. *If a cold persists . . . and especially if you develop a slight fever . . .*

*get in touch with your doctor promptly.*

High fever makes the difference between a "slight cold" and a "serious cold," because it usually means that complications have developed. If, in addition to fever, you also have *chills, painful coughing or difficult breathing*, report these symptoms to your doctor at once, for they almost invariably indicate pneumonia.

While winter is upon us, it is important to protect your general health. You may do this if you get all the sleep you need, eat a balanced diet and avoid exposure to severe weather unless properly dressed. In addition, keep away from anyone already suffering from a respiratory ailment.

By guarding your health, your resistance to colds, virus infections and pneumonia may be increased. In the event you develop one of these ailments, your ability to fight the infection and recover quickly will be greater.

If you would like more information on how to help avoid becoming a target for winter ailments, Metropolitan will gladly send you a free copy of its booklet, *Respiratory Diseases*. Just fill in the coupon below and one will be mailed to you.

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# MARKETING

## Cigarettes in '54: Still on the march

Volume of Big-Name Regular Brands Fell Off Again . . .

BRANDS (Billions of Cigarettes)	Regular	% Change from '53	King	% Change from '53	Filter	% Change from '53	Total	% Change from '53
Camel (R. J. Reynolds)	84.0	-15.2%	—	—	—	—	84.0	-15.2%
Lucky Strike (American Tobacco)	58.0	-10.8	—	—	—	—	58.0	-10.8
Chesterfield (Liggett & Myers)	40.5	-16.5	13.5	—	—	—	54.0	-12.9
Pall Mall (American Tobacco)	—	—	51.0	+ 6.3	—	—	51.0	+ 6.3
Philip Morris (Philip Morris)	20.8	-25.7	8.2	+17.1	—	—	29.0	-17.1
Old Gold (P. Lorillard)	14.8	-24.1	4.0	New '53	0.7	New '54	19.5	-15.2
Viceroy (Brown & Williamson)	—	—	—	—	14.9	+148.3	14.9	+148.3
Herbert Tareyton (American Tobacco)	—	—	13.0	- 3.7	1.0	New '54	14.0	+ 3.7
Kool (Brown & Williamson)	9.1	-20.9	3.0	New '54	—	—	12.1	+ 5.2
Raleigh (Brown & Williamson)	Dropped '54	—	6.5	+ 8.3	—	—	6.5	-13.3
Winston (R. J. Reynolds)	—	—	—	—	6.5	New '53	6.5	New '53
L & M (Liggett & Myers)	—	—	—	—	6.2	New '53	6.2	New '53
Kent (P. Lorillard)	—	—	—	—	4.0	+ 33.3	4.0	+33.3
Cavalier (R. J. Reynolds)	—	—	3.0	+20.0	—	—	3.0	+20.0
Parliament (Philip Morris)	—	—	—	—	2.7	+ 12.5	2.7	+12.5
Fatima (Liggett & Myers)	—	—	1.0	-50.0	—	—	1.0	-50.0
Others	1.5	-44.4	2.6	-42.2	0.5	+400.0	4.6	-37.0
<b>TOTAL</b>	<b>228.7</b>	<b>-16.6%</b>	<b>105.8</b>	<b>+ 5.3%</b>	<b>36.5</b>	<b>+209.0%</b>	<b>371.0</b>	<b>- 4.0%</b>

... But Kings and Filters Continued Their Climb . . .

Share of Market (Percent)					
TYPES	'50	'51	'52	'53	'54
Regular	89.9%	86.9%	80.1%	70.8%	61.7%
King	9.5	12.2	18.5	26.0	28.5
Filter	0.6	0.9	1.4	3.2	9.8

... Affecting the Makers' Standings

Share of Market (Percent)		
COMPANIES	1953	1954
American Tobacco Lucky Strike, Pall Mall, Herbert Tareyton	32.7%	33.2%
R. J. Reynolds Tobacco Camel, Winston, Cavalier	26.3	25.2
Liggett & Myers Tobacco Chesterfield, L&M, Fatima	16.6	16.5
Brown & Williamson Tobacco Viceroy, Kool, Raleigh	6.6	9.1
Philip Morris Philip Morris, Parliament	10.1	8.7
P. Lorillard Old Gold, Kent	6.9	6.4

# the Skids

The single overriding fact about the cigarette industry in 1954 was a sobering one: For the second year in a row, production and sales slipped. The grand total last year was 371-billion tax-paid cigarettes, a drop of 4% from 1953 (table, left).

The two-year turnaround in the cigarette industry came after an uninterrupted climb of 21 years. Despite the increase in population, domestic consumption is now 6% below the high-water mark in 1952. Per capita consumption was 114 packs a year, against the peak of 125.

• **Trade Shifts**—This is the background for the important changes that have taken place in the trade—changes that threaten to have a greater impact on the industry than anything within the past decade or more.

According to a special report prepared for BUSINESS WEEK by Walter E. Knight, director of the research division of the Louisville Chamber of Commerce, here are the year's major developments:

• There was an important change in the competitive situation among the second-rank cigarette makers. Brown & Williamson Tobacco Corp. passed both Philip Morris & Co., Ltd., and P. Lorillard Co. to take fourth place among all companies in the field. Its start was Viceroy, which showed a gain of 148.3% over last year, the outstanding gain among all cigarettes.

• The filter-tip and king-size cigarettes continued to make serious inroads into the regular (70mm.) type. Together these two accounted for only about 10% of all cigarettes sold back in 1950; now they account for 38.3%. If the pace continues, it looks as though they will split the market equally with regular cigarettes next year.

• The top four cigarette brands collectively lost ground. In 1950, they accounted for 80% of the whole cigarette market. Last year they were pared down to about 69% of the total domestic market. Of the top brands, only American Tobacco Co.'s Pall Mall—a king-size cigarette—made any gains at all. Indeed, if it continues to make the same gains next year, Pall Mall will pass its stablemate, Lucky Strike.

• These changes, in turn, forced major changes in marketing strategy.

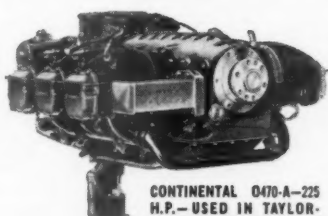
• **Strategy**—The classic rule in cigarette marketing was established in the

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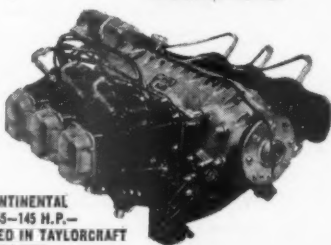


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TAYLORCRAFT TOPPER



CONTINENTAL  
C145-145 H.P.—  
USED IN TAYLORCRAFT  
SKY LINER

Continental Motors shares Taylorcraft's pride of achievement in the three new series of utility planes currently being introduced by this industry pioneer. Like most other leading makes of airplanes, Taylorcraft's new all-Fiberglas models—the Ranch Wagon, the Sky Liner, and the Topper—offer the proven safety, dependability and economy of Continental power. The fact that 50 per cent of Taylorcraft's 1955 production is destined for export provides an additional reason for standardizing on Continental power. For Continental aircraft engines are backed by established service facilities . . . trained mechanics and genuine Continental parts . . . all over the world, wherever people fly.

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WHO LOOK  
TO THE FUTURE  
LOOK TO THE  
AIR FORCE  
RESERVE



**Continental Motors Corporation**

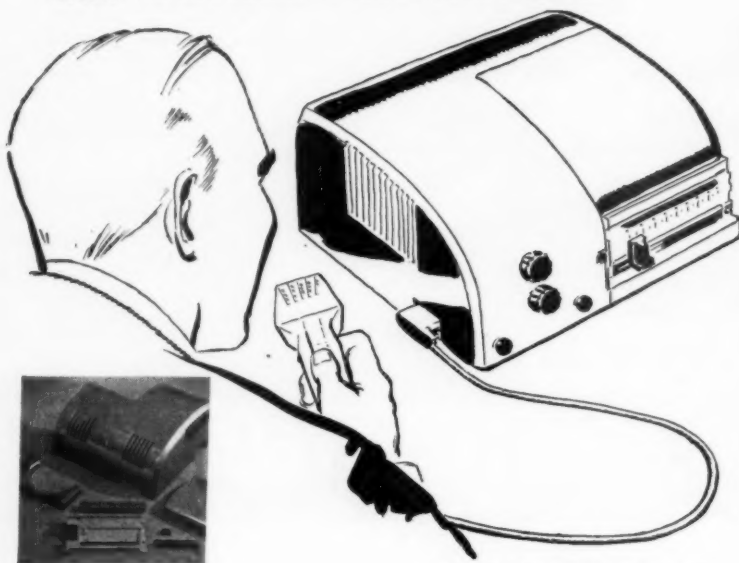
Aircraft Engine Division  
MUSKEGON, MICHIGAN

Another up-to-date product gets...

## TALKING POINTS

## and SAVINGS

with DUREZ PHENOLICS



Courtesy Peirce Dictation Systems Corp.

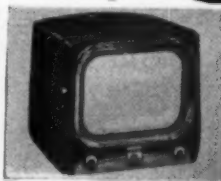
These materials offer you a fruitful approach to savings on the production line as well as buyer benefits for your products. Either result is profitable... both are doubly so.

For example, a major part of finish-ing cost on this new Peirce Magnetic Belt Dictation unit was saved by using Durez for the five-piece molded case and dial panel. The desired color and quality of finish is applied by a low-cost process that would have been impossible on metal parts. Being self-insulating, the material prevents shorts in units. In two belt drum parts it also contributes to constant signal output needed for distortion-free recording.

Ease in maintaining rigid dimensional tolerances and ability to mold-in slots, holes, and threaded inserts also helped to hold cost down.

Whether or not you are already using plastics, it will pay you to inquire into the phenolics today. Interesting new developments by Durez are extending the industrial importance of these highly versatile materials.

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**RESINS FOR INDUSTRY.** Bonding, casting, coating, laminating, impregnating, and shell molding.

"... chief cause of all this pother was, of course, the health scare . . ."

CIGARETTES starts on p. 58

1920s by advertising man Albert Lasker and George Washington Hill, head of American Tobacco. It was a simple rule: Pour most of your advertising money into a single brand rather than spreading it over a scattering of brands, as was then the custom. This theory helped to bull Luckies to the No. 1 spot in the business and to revolutionize cigarette marketing.

Now, with the rise of the filter and king-size cigarettes, the old rule has been reexamined by the industry. The question is whether to make the newest types under different names or to bundle them up under the name of the big brand.

Strategy differs. R. J. Reynolds Tobacco Co. (Camel) and American Tobacco Co. are standing pat on their big brands and pushing their filter-tip and king-size entries under different names. P. Lorillard Co. represents the opposing view; it has brought out all three types under the Old Gold label. Liggett & Myers Tobacco Co. is straddling by bringing out Chesterfields in two versions, regular and king-size.

It is too early to guess which theory is going to win out. All the new entrants are too new to the market to make comparisons valid.

• **Newcomers**—In the main the year was marked by new entries and by new features for older cigarettes. At least eight new brands or variations appeared on the market during that time. Most of these were designed to give additional protection to the smoker, one way or another, and some of the companies fell back on the old but recently forsaken theme of health to push their new products.

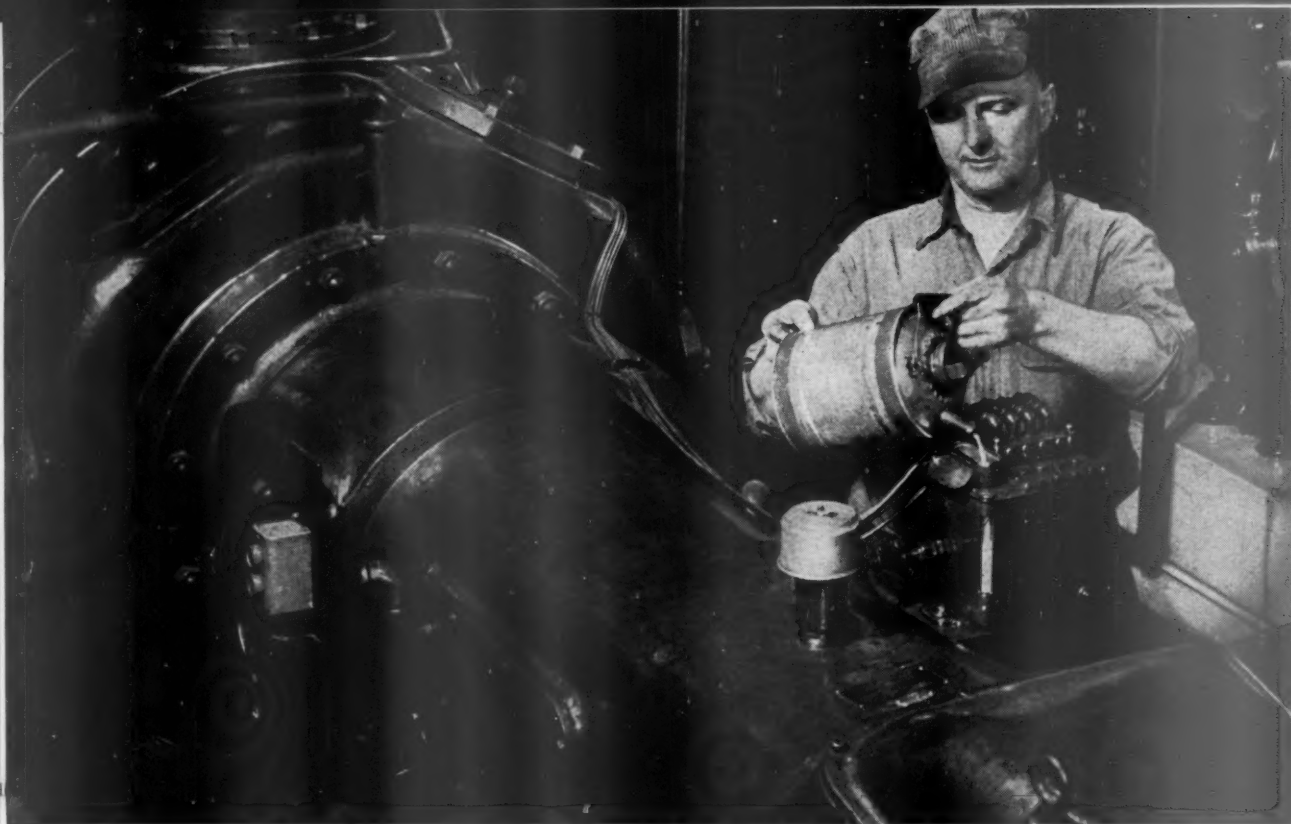
Some new filter types were called "health" tips; one brand even went the extra mile by providing a filter tip for a denicotinized cigarette. Other variations included the combination of king-size with filter tips. There were also ivory-tipped cigarettes.

The newcomers that really took fire were: (1) Herbert Tareyton, which became available in filters Aug. 1 and sold 1-billion before the year's end, and (2) Winston, which went on the market Mar. 17 and reached the 6.5-billion mark by yearend.

• **Health Scare**—The chief cause of all this pother and innovation in the industry was, of course, the health scare—the linking of cigarettes with cancer, heart disease, and other ailments.

The industry also blames other factors for its difficulties. It points to the



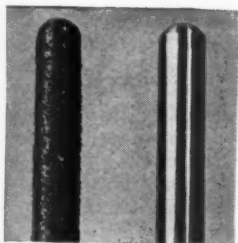


Solnus may be used for lubricating such parts as plain bearings, anti-friction bearings, linkages, slides, cams and gears.

Also for use in gear boxes, hydraulic systems, circulating systems, industrial diesel engines, and compressors.

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A high grade lubricant for a "squirt-can" price



## ANTI-RUST TEST

Actual photograph shows steel test bars following test. Right bar was tested with Solnus. Left bar with an uninhibited oil.

**VERSATILE.** Solnus oils sell in the medium price bracket, yet can do many jobs on which you may now be using higher priced oils. While Solnus' low price makes it practicable for once-through uses, its high quality also makes it suitable for enclosed or circulatory systems. Use Solnus for all your general purpose lubrication and you can take advantage of the economies of bulk prices.

**SIMPLIFIES INVENTORIES.** Because Solnus may be used for so many applications, you can reduce the number of oils you need to store. You save space in your oil room and greatly simplify your inventory and maintenance problems.

**LONG LIFE.** In actual field performance, Solnus has been proven to have excellent service life under all types of operating conditions. In addition to a long service life, Solnus has the following characteristics:

- Excellent anti-rust protection
- Superior anti-corrosion protection
- Very low carbon-forming tendency
- High film strength
- Very low pour characteristics
- Mild cleansing action

These are a few reasons why Solnus oils give you "more lubrication per dollar." Write for the technical bulletin on Solnus oils. Dept. BW-1.

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changing distribution of age groups within the total population. The industry's chief trouble lies in the fact that the number of people in 20-39 age group reaches its lowest point in the 1952-1955 period—and this is the group that contains the biggest percentage of smokers and the heaviest smokers.

At least one other factor has had an effect on total sales and production. Exports, which were running some 7% behind 1953 at midyear, had declined another 2% by yearend. Total tax-free sales (including sales to the overseas armed forces) declined from 36.9-billion in 1953 to an estimated 33.6-billion in 1954.

• **Fewer but Longer**—Industry observers, trying to find one bright spot, insisted that the picture isn't quite so bad as it seems, at least on the domestic side. The growth of the king-size cigarettes exaggerates the downturn in sales, they think. The catch, they argue, is the fact that king-sizers are 20% bigger than regular cigarettes. In other words, the industry is selling fewer but larger units.

Figuring on this basis, some industry people say that while the decline in units during 1954 was 4%, the decline in pounds of tobacco consumed came nearer to 2.5%.

• **Fiscal Side**—The upshot of all these events, as far as profits go, was not so unhappy as might have been expected. Lower corporate tax rates saved the day for most companies and allowed dividends and net earnings to remain stable for the most part:

Company	Per Common Share	
	1953	1954 (Estimated)
American Tobacco...	\$5.92	\$6.00
R. J. Reynolds...	3.12	4.30
Liggett & Myers...	5.50	5.35
Philip Morris		
(Fiscal Year)...	4.06	4.00
P. Lorillard .....	2.33	2.25

However, the apprehension of investors was at least partly responsible for the failure of tobacco stocks to rise as many other issues did in the yearend bull market.

• **Higher Yield**—Finally, decreased demand plus a bumper crop have combined to depress burley leaf prices in the 1954 fall market by more than \$2.60 per 100 lb. The bumper crop was harvested despite a government-ordered 8% cutback in acreage.

This was achieved by producing a banging 1,528 lb. per acre, 125 lb. higher than the previous record set two years ago. The result is viewed as meaning a \$10-million to \$12-million increase in burley growers' purchasing power last year. It is also expected to precipitate a further cutback in 1955 production which, at the 1954 price level, would reduce growers' income.

## What Size Clothes Does This

Today, she asks for these sizes at a store:

12 dress

34B brassiere

26 girdle

34 slip

36 sweater (probably)

10 coat



Data: Corset & Brassiere Assn. of America; Strauss, Adler Co.

## Dress Sizes May Go Back to

Every woman knows that the size garments she wears depends on a lot of things she doesn't understand. If she pays \$12 for a dress, she may wear a size 14; if she pays \$40 for it, she is more likely to wear a 12. Or it may be that a 14 fits her better—or a 15. Her lingerie will run size 34 or 36. In coats, a 10 may fit. Unless she is lucky, she wastes time whenever she shops finding out what size she should be trying on.

This week the Commerce Dept. officially launched what it hopes will prove a quiet revolution to change this. It let loose on the apparel industry a booklet called Recommended Commercial Standard on Body Measurements for the Sizing of Women's Patterns and Apparel. "Our object," explains Commerce's Mansfield Lonie, who has shepherded the project since it was first proposed in 1945, "is to enable a woman who is a size 12 to go into any store and have a size 12 fit her—no matter what the garment is or what she pays for it."

• **Old Order Changes**—Time was, before the days of mass production of ready-to-wear clothing, when such

standards would not have been needed. The apparel trade craftsmen knew by long experience how to shape and proportion the dress or suit to fit the wearer. The rapid growth of the ready-to-wear garments drove a wedge between the consumer and the garment makers. Today, patterns or garments—not the human body—are the basis for sizing.

• **Coverage**—For the first time, the new commercial standards provide pattern and garment makers—and the people who set specifications for them—with actual body measurements, taken from some 10,000 WACs. The consumer also gets a scale by which she can identify her own body type and size. For convenience, the size for all garments would still be designated by dress size; that's because this is the size women know best.

The standards follow today's usage in that they cover four classifications: misses, women, half sizes for shorter women, and juniors. But they go beyond common present-day practice. They provide for nine different body types: three height groups—tall, regular, short; and three bust-hip groups for

## e **This Girl Buy?**

Under new standards, she would  
buy a 12T (T for tall)  
for every garment:

12T dress

12T brassiere

12T girdle

12T slip

12T sweater

12T coat

©BUSINESS WEEK

## ck **to Nature**

each height: slender hip, average hip,  
and full hip.

The size designation indicates all  
these elements. Thus size 14R would  
mean size 14 bust, regular height, aver-  
age hip. Size 14T minus indicates a  
tall 14 with slender hips; size 14S plus  
means a short 14 with full hip. For  
each size there are 48 specific measure-  
ments.

• **Leaders**—The mail order houses were  
the first to clamor for some sort of  
standardization in sizing. Back in 1945,  
at the request of the Mail Order Assn.  
of America, the government began to  
lay down the outlines of such a study.  
In April, 1953, it submitted proposed  
standards to the trade. This week, the  
final draft of "recommended" commer-  
cial standards was officially announced.  
Now it is up to the various segments  
of the apparel world to accept or reject  
the recommendations.

Actually, some manufacturers and  
retailers have already used the new  
measurements, including such big re-  
tailers as Sears, Roebuck & Co., Mont-  
gomery Ward, J. C. Penney Co., and  
bathing suit manufacturers. Some of  
the form makers and pattern fashion

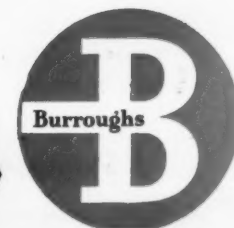
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*Capital and Surplus Over \$170,000,000*

schools have also used them. The result, says one member of the trade, is that a woman often can get a better fitting garment from a mail order house than she can get at a top retail store.

• **Skeptics**—The trade itself is divided as to the value of the new measurements—which, incidentally, are those of women in foundation garments. National Dress Manufacturers Assn. says that the sizing chart is not very different from charts already in use, that cut and styling make the difference between a garment that fits badly and well. Each designer and manufacturer takes pride in the individuality of his output, believes he already knows the answers. Furthermore, the development of half sizes for shorter women and some development of clothes for tall women have already helped fill some of the bigger gaps in the size systems.

At least one big retailer agrees. "Size is a trade secret," he says, and manufacturers will be loath to give up their individual tricks of the trade. For some, the recommended standards will mean junking their previous patterns. "You can never prevent a maker of low-priced goods from skimping on his materials," says Ohrbach's Jerome Ohrbach. Finally, a lot of manufacturers and retailers believe that women will buy what they like, alter the clothes to fit.

Yet even the skeptics admit a really scientific set of measurements would be a fine thing. Proponents of the new standards believe such standards will be accepted in the long run—though it may take several years. They argue that something is wrong when a consumer has to pay, in alterations, for faulty patterning.

• **Boys' Example**—Leon Singer of the Boys' Accessory & Apparel Manufacturers Assn. cites what has already happened in his branch of the apparel trade. Several years ago the association instituted a similar new set of sizing standards, based, like the new one, on actual measurements of boys and girls by the Agriculture Dept. some 10 years ago.

This study revealed a major mistake of the industry: It had been grading clothes by age, a standard that helped the consumer not at all. The new standards eliminate the age factor entirely. The researchers found that a boy's height and weight were enough so that his mother could buy his clothes with reasonable assurance that they would fit in 90% of the cases. In some garments—shirts; for instance—a neck measurement was added in the key.

For the last two years, retailers and manufacturers of boys' clothes have been gradually accepting the new standards. Singer reports advantages that suggest how the industry and the con-





## Four good ideas ... that keep growing!

Davison Chemical Company, a Division of W. R. Grace & Co., is a rapidly growing factor in inorganic chemicals. Already well recognized in this field for its petroleum catalysts, over-all research, granulated mixed fertilizers and finely divided silicas, its management is working continually on plans for expansion and diversification. Call or write Davison and tell us of your plans or problems in inorganic chemistry. Our representatives are known for their technical experience and are at your service.

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*Division of W. R. Grace & Co.*

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**BIG CHANGE.** There has been more progress in creative packaging during the past fifty years than in all the preceding centuries. And, today, the research and engineering staffs of Continental



**IN 1905**, when Continental first went into business, few of the products shown were available in individual packages. Most were dispensed in bulk from barrels, boxes or crates. Imagine a modern super market without packaging!

Not only have thousands of products now

become "package goods," but the packages have been constantly improved. Spray nozzles, spouts, re-closing tops make products handier to use. Development of specialized containers like the plastic squeeze bottle has given familiar products a fresh look, increased utility.



Can Company are working to make the next fifty years even more productive in the creation of tailor-made packages for more products. For each advance in packaging is reflected in better living for all Americans.



1905-1955

*Our Fiftieth Year  
of Tailor-Made  
Packaging*

**CONTINENTAL  
CAN COMPANY**

*Serving Industry... Serving America*

Tin Cans	Conolite®
Fibre Drums	Decoware
Caps and Cork	Plastic Bottles
Paper Containers	Steel Containers
Flexible Packaging	

# Sullvyne-Clad Metal Laminate is Pre-Finished ...goes from forming to final assembly

*On the  
assembly line  
at CBS-Columbia,  
television cabinets  
are made in two  
simple steps.*



Pre-finished sheets are punched and formed.



Completed Cabinet is placed over chassis.

**S**ULLVYNE-CLAD is a pre-finished sheet made to your specifications with smooth or embossed vinyl sheeting laminated on steel, aluminum or magnesium. Sizes up to 52" x 120".

Sullvyne-Clad is completely flexible, ready for your production line. Process it with your standard tools. Stamp it, punch it, crimp it, deep-draw it, or bend it 180° without damaging the vinyl or breaking the bond.

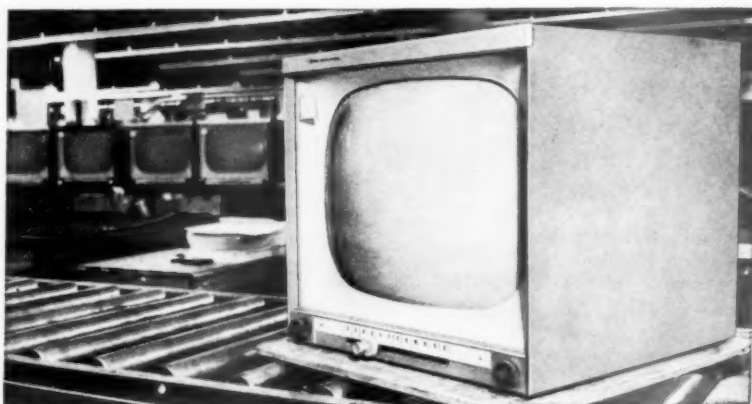
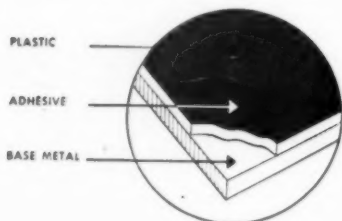
No special dies or drawing compounds are necessary. Bond strength will vary according to the metal used and the thickness of the vinyl laminate—the average is 35 lbs. per inch.

Sullvyne-Clad slashes service costs; gives you an unequalled finish ten times thicker than any conventional coating—.012" to .030". It has positive resistance to abrasion and corrosion; won't chip, crack or craze; far superior to any ordinary paint, lacquer or enamel.

Sullvyne-Clad is available in a wide variety of colors, patterns and embossings. Samples free on request.

METAL LAMINATE DIVISION  
O'SULLIVAN RUBBER CORP.  
WINCHESTER, VIRGINIA

*Makers of America's No. 1 Heel*



Set is ready for consumer . . . all finishing steps were eliminated.

*\*Actual photograph of Sullvyne vinyl plastic sheeting bonded to steel: Coffee brown, Buffalo Grain.*

*O'Sullivan*  
**Sullvyne-Clad Metal Laminate**

Patents Pending



sumer would benefit from the standards now proposed for women.

• **Who Gains**—The most obvious beneficiary is the consumer, who has discovered that there is less wear and tear in clothes that fit—confuting the old idea that the fuller garment was necessarily the better one.

The retailer stands to gain, too. First there is the saving in the sales clerk's time—and the consumer's time—in worrying over which size to buy. More important, from the retailer's point of view, is the saving in returns.

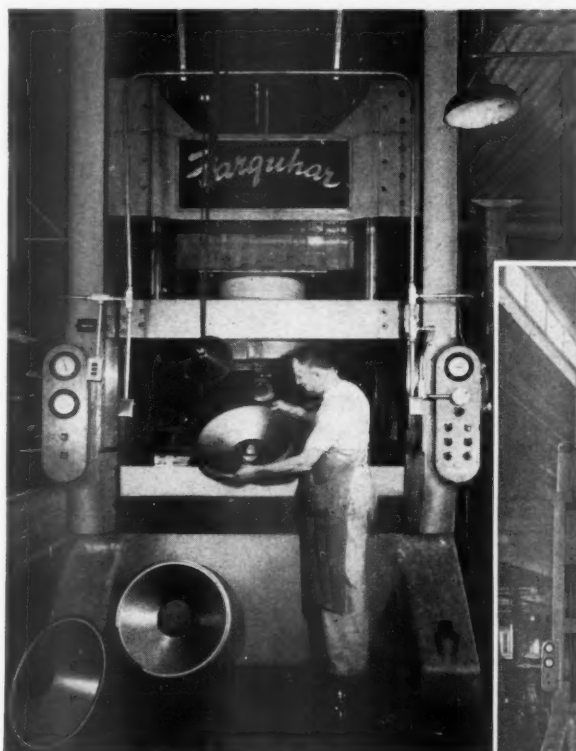
That problem of returns haunts all retailers. According to National Retail Dry Goods Assn., average returns run something like this: on coats and suits, 11.1% of dollar sales; on dresses, 12.5%; blouses and sportswear, 12%. As a sheer guess, an NRDGA spokesman says, perhaps 25% of those returns are due to misfits. But this figure, even if it is accurate, doesn't tell much. In women's apparel, especially, a woman may keep a new dress that doesn't fit because she likes it.

Even the manufacturer may benefit from a more accurate system of measurement. Thus, boys' apparel makers found that by cutting nearer to size they could actually save some material. Simon Wolf, of Wolf Form Co., says of the economic value of correct sizing, "Anything that promotes sales is economical, from manufacturer to consumer." Wolf's company cooperated with Commerce on the new standards, is using them in making its own products.

• **Far-Reaching Changes**—Over a long period, trade observers expect that acceptance of the new measurements will make some far-reaching changes within the industry. It could well lead to further specialization, both at the manufacturer's and the retailer's end. This trend, in fact, has already begun.

Doris Burrell, editor of Department Store Economist, believes that better sizing will change merchandising, too. Some of the artificial gimmicks now used will give way to a more scientific presentation of goods. Right now department stores tend to depend on impulse buying; they'll set up a teenage shop, stick in a few lines, and rely on the consumer to do the rest. Now, with full information on each of the basic categories—misses, women, and juniors—stores will be able to carry a full size range for each type. As Miss Burrell puts it, "What's the sense of having junior sizes run small when the children who wear junior styles come in all sizes?"

Proponents of the proposed standards believe that, as Lonie puts it, "by putting a floor under sizing," merchants can do a more intelligent job of selling on other bases: cut, quality of cloth, styling, price.



Operator removing completed ceiling diffuser ring from Farquhar Hydraulic Press at Tuttle & Bailey, Inc., New Britain, Conn.



**Tuttle & Bailey reports:**

## **FARQUHAR HYDRAULIC PRESS Makes New Product Possible**

Tuttle & Bailey, Inc., New Britain, Conn., produces heating convectors, ceiling diffusers, grilles, registers, etc., as well as several defense products for the United States. When production of the ceiling diffusers was first planned, the company found they could not be manufactured with existing equipment at their plant.

Tuttle & Bailey then consulted with various hydraulic press companies, searching for a design to meet their requirements. Finally, the A. B. Farquhar Company came up with the best design—and at the lowest cost—a 450-ton press with pressing ram speed of 0 to 45 in./min., approach and return speed of 390 in./min., and an operating hydraulic pressure of 2650 lbs./sq. in.

The company is very pleased with Farquhar's low maintenance cost, too. The press was installed in Aug. 1950,

and has required no maintenance other than occasional gasket replacement.

### **Farquhar Presses Cut Your Costs**

The above installation is just one more example of Farquhar performance in heavy production! Farquhar Presses are built-for-the-job . . . assure faster production due to rapid advance and return of the ram . . . greater accuracy because of extra-long guides on the moving platen . . . easy, smooth operation with finger-tip controls . . . longer life due to positive control of speed and pressure on the die . . . long, dependable service with minimum maintenance cost!

For our free catalog showing Farquhar Hydraulic Presses in all sizes and capacities for all types of industry, write to: THE OLIVER CORPORATION, A. B. FARQUHAR DIV., Hydraulic Press Dept., 1501 Duke St., York, Pa.



**THE OLIVER CORPORATION • A. B. FARQUHAR DIVISION**

## Census Bureau Revisions Emphasize *Florida's* Growth

...manpower for business  
and industry



Most recent Bureau of Census population estimate revisions show that more than 2,600 people from other states are moving into Florida EACH WEEK. This group embraces a great variety of skills and knowledge, enhancing Florida's manpower pool and exciting market opportunities.

With manpower available, with Florida's highly favorable tax climate and Florida's sunny, healthful climate, why not select Florida for your new southern plant, branch plant, warehouse or office? Florida's position at the southeastern corner of the United States is strategic for serving the South and Latin-American countries as well. As your markets move south you need such a strategic location.

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**you'll always  
do better in**  
*Florida*

## MARKETING BRIEFS

**Liquor blend:** Schenley Industries has bought a controlling interest in Park & Tilford Distillers. Total price wasn't revealed, but Schenley paid \$43 a share for stock held by the Schulte family, will offer the same price to any other Park & Tilford stockholders.

**Industrial advertisers** for the first time have a Handbook of Industrial Direct Mail Advertising. The brochure, prepared by National Industrial Advertisers Assn., describes the types of direct mail, sums up the targets that advertisers should shoot for, and tells them how to go about it.

**Sears, Roebuck's** 1955 spring general catalog offers the lowest prices since 1950. Average price is around 3 1/4% lower than the same 1954 catalog, though in refrigerators the decrease runs 9%. Home laundry equipment takes a 7 1/4% cut; yardgoods and women's and girls' dresses, 7%.

**Discount houses** made themselves felt in Christmas sales, according to a National Retail Dry Goods Assn. study of retailers in 42 cities. Small appliances felt the discount the most, with toys a close second. Best way to counter the discount, the reporting stores said, was "to meet the price on the nose." But many stores thought manufacturers could help by enforcing established prices.

**Working control** of Gruen Watch Co. has passed to a group of Twin Cities businessmen. Known purchasers are Burton Joseph, of I. S. Joseph Co., grain concern; Carlyle Morey, automobile dealer; and Bernard M. Kegan, of Sealy Mattress Co. They now hold some 100,000 of the 300,000-odd shares outstanding. Gruen has had management troubles, besides the general ills of the watch industry.

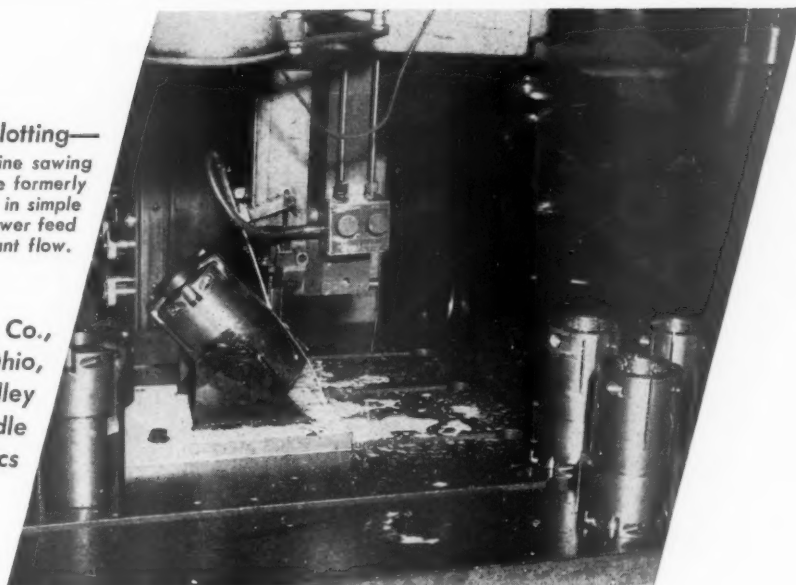
**Bride-to-Be**, a new Curtis publication, will be launched in mid-1955. This magazine, evidently lining up for the expected marriage rush of the late 1950s and 1960s, will be a quarterly. It will sell for \$1 a copy, at newsstands only.

**Credit customers** who buy from Spiegel's 1955 mail order catalogs needn't worry about what will happen to their unpaid balances if they die. The company protects them—and itself—by offering insurance on such purchases up to \$1,000—without charges to the customer. Prudential Insurance Co. of America wrote the group contract.

### 50% Saving on Slotting—

DoALL band machine sawing slots which were formerly milled. Part is held in simple fixture on hydraulic power feed table. Note coolant flow.

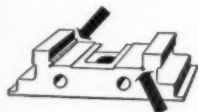
at  
National Acme Co.,  
Cleveland, Ohio,  
builders of Acme-Gridley  
Multiple and Single Spindle  
Bar and Chucking Automatics



## How Band Machining cuts costs on 600 Parts for a Machine Tool Builder

### TYPICAL PRODUCTION BAND MACHINING WORK AT NATIONAL ACME

Cutting Parts from Solid—this assures longer-wearing parts at approximately the same cost as using castings or forgings!



Cutting Contoured Parts



Slotting and Splitting operations

Cutting Grinding Relief



PB-4A rev.



**Friendly DoALL Stores... (in 40 cities)**

Personalized Service... Complete Stocks... Local Delivery

AT National Acme Co., Cleveland, more than 600 production operations formerly done with milling machines, planers, shapers, torches and lathes are now done at  $\frac{1}{3}$  to  $\frac{1}{2}$  the cost with DoALL band machines.

You can achieve similar savings by utilizing the new concept known as "non-restricted geometry" on production operations such as those illustrated at the left. Here is why:

**Faster Cutting**—band machining is the fastest method of removing sections of metal.

**Less Set-up Time**—because of simple fixturing.

**Lower Cost Fixtures**—often a simple clamp is all that is needed.

**Lower Cost Cutting Tool**—DoALL saw bands do more work per tool dollar and there are no resharpener costs.

**Lower Capital Investment**—DoALL power feed band machines cost  $\frac{1}{2}$  to  $\frac{1}{3}$  as much as other production machine tools.

**NEW COLOR FILM:** "Production Band Machining" now available showing operation of this new machining concept.

**FREE DEMONSTRATION.** You can see it and believe it! Call your local DoALL Store or write DoALL, Des Plaines, Ill., for a free demonstration. And, ask for new Catalog.

Call Your DoALL Service-Store

Machine Tools • Cutting Tools • Measuring Instruments  
Shop Supplies • In Stock

The DoALL Company, Des Plaines, Ill.

**EDUCATIONAL STUDY WALL CHARTS**

Economic Principles  
\$1.00 each postpaid  
Lower quantity prices.



The biggest and richest lode of titanium ore in the Western Hemisphere is about to be developed in lower Mexico (map, right) by Republic Steel Corp. Before the mine can produce in commercial volume, however, the company—and the Mexican government—will have to improve roads from the mine to Port Angel and Capalita. Jeep in picture at far right is riding on a relatively good section of the road to Capalita.



## Titanium: Republic Steel Corp. S



PROSPECTORS who found ore are Don Gillies, 82 (left) and Willis Seaman, 70.

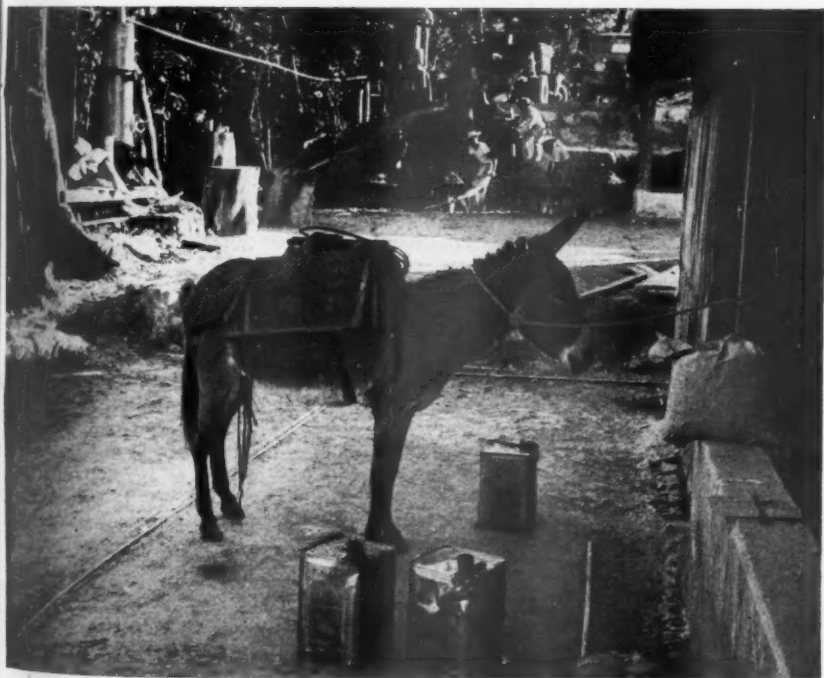


EXPLORATORY TUNNELS into the ore bands were cut by Mexican miners (above), who drew the equivalent of \$2.50 to \$3 a day. Mine will be mechanized by summer.





## Strikes It Rich in Mexican Hills



**WATER SUPPLY** for the mining camp has to be hauled by a burro brigade. The 5-gal. cans are filled at a stream 3,000 ft. down the 60% grade mountainside.

Iron had its Mesabi Range and copper its Butte, Montana. Now titanium, one of the most-sought of all metals in the Jet Age, is finding its bonanza in a remote, primitive, mountain section of lower Mexico (map).

This week, the titanium industry hailed the news that Republic Steel Corp. is on the verge of tapping the new Mexican source, described as the greatest body of high-grade titanium ore yet discovered in the Western Hemisphere. It also got good news from London, where Fulmer Research Institute announced a new process of catalytic refining that may cut the cost of titanium sponge in half.

• **Behind the News**—The two announcements promise an early solution of two problems that have beset titanium during its six years in commercial production: (1) ample, nearby supply of high-grade ore and (2) cheaper, larger-scale methods for refining and processing the metal.


Although production of titanium

*you should know*

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combined power plant capabilities  
are nearly 1 billion kilowatts!

**SITE FACTS:**  
Write for Free  
Detailed Analysis,  
"Industrial Colorado"


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**COLORADO CLIMATE...THE MAGIC INGREDIENT**

**TIME**


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**"UNITRIP"**

Stromberg time recorders are known for their fine quality and reliability — a reputation earned over half a century.

**STROMBERG TIME CORPORATION**  
SUBSIDIARY OF GENERAL TIME CORPORATION  
THOMASTON CONN.



**"... the total amount of high-grade titanium ore could easily mount to hundreds of millions of tons . . ."**

**TITANIUM** starts on p. 72

sponge—the primary form of the metal—has increased from 3 tons in 1948 to 6,000 tons last year, there has never been enough to satisfy the appetite of military and civilian industries or to bring the price low enough to open up broader markets. Now the titanium producers look to 1955 as perhaps the turning point in the metal's progress.

• **Wealth of Ore**—The most spectacular development is the Mexican ore discovery. In only one of its 38 claims covering an area 7 mi. by 1½ mi., Republic Steel has proved the existence of 25-million metric tons (tons of 2,204 lb. each) of rutile ore. This ore averages 15% to 20% rutile, which in turn is 60% pure titanium. Over the years, metallurgists say, this proven ore should yield 4-million metric tons of pure titanium.

Moreover, outcroppings of rutile on the other 37 claims in the tract indicate that the three bands of ore on the first claim may extend through the whole area. If so, the total amount of ore could easily mount to hundreds of millions of tons.

Rutile is the richer of the two common titanium ores. It is also the less abundant. Australia is now the leading producer of rutile. Ilmenite, the commoner ore, is found abundantly in the U.S., chiefly in New York State, but it runs to only 25% or 30% titanium. That's why discovery of a huge quantity of 60% rutile ore in North America is so interesting.

## I. Striking It Rich

Early in 1952, Donald Gillies, 82-year-old mining consultant for Republic Steel (picture, page 72), was busy proving and nailing down a multimillion-ton deposit of rich iron ore near Vera Cruz when he heard rumors of a sizable rutile deposit in the Mexican state of Oaxaca. With military demand for titanium getting ever more urgent, geologists were hot on the trail of any such ore.

Gillies called Willis Seaman, 70-year-old consultant to iron ore producers in the Lake Superior area, and Ward Broadfield, a Georgian who has developed and operated many foreign mines, to accompany him on an exploration. With packs and bed rolls, the three men set out in mid-1952 to pick up the search in Oaxaca where others had left off.

• **Pay Dirt**—On a 4,500-ft. mountain in the foothills of the Sierra Madre range, near the village of Pluma Hidalgo, the three explorers found the rutile outcroppings they sought. In

April, 1953, Republic Steel bought its first eight claims from Gen. Joaquin Morenci Suarez. It soon bought 30 more claims along the line of the ore bands.

Besides exploring the surface, Republic has driven three adits, or tunnels, into the mountain on its first claim, one at the level of each band of ore. The highest is about 500 ft. below the summit; the others are below at intervals of 100 ft.

This probing of the mountainside indicates that the ore bands vary from 75 ft. to 200 ft. wide and average about 40 ft. thick. The first adit penetrates 300 ft. into the mountain, with cross-cuts each more than 50 ft. The second and third adits are respectively 40 ft. and 20 ft. long. All are in rich ore all the way. The last two adits were halted because there was no place on the 60% slope of the mountainside to store the ore.

## II. What Next?

Work is now under way on a fourth adit, 100 ft. farther down the mountain. This tunnel, 10 ft. high by 8 ft. wide, is the beginning of the main mine. Ore mined at higher levels will be dropped down shafts to this level.

From the mine entrance, the ore will be carried by belt about half a mile to the nearest relatively level spot, an 11-acre area at 3,000-ft. elevation that still has 18% slope. There the plant will be built for concentrating the ore that's mined.

• **Orders Placed**—Late last month, Republic placed orders for an ore concentrating plant with a capacity of 250 tons of ore per day, for modern mining equipment, and for a 1,000-hp. diesel-electric power plant. All this machinery is to be delivered at Oaxaca well in advance of the rainy season that starts in June and extends into November.

The equipment costs more than \$1-million. Republic itself will build the plant. The design provides for expansion either by adding similar units or by installing a much larger unit later. The company expects to be producing at the rate of 2,000 tons of 95% titanium dioxide concentrate per month by the end of 1955.

• **Obstacles Ahead**—Republic still faces some obstacles, principally in transportation.

From Oaxaca, the mining and concentrating machinery will be trucked over mountainous roads to the plant site 134 mi. away. The last 20 mi. between Capalita and the site will be most haz-

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Wide tapes, narrow tapes—any of more than 300 different pressure-sensitive tapes can be applied faster, easier by dispensers designed specially for the job. 75 different manual, automatic, and semi-automatic dispensers for "Scotch" Brand Tapes are now available—or our engineers will design one to fill your specific needs. For facts, write on your letterhead c/o Dept. BW-15.

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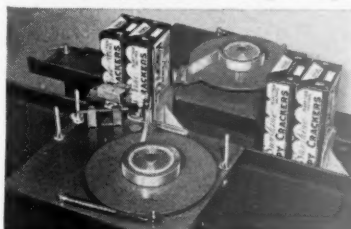
The term "Scotch" and the plaid design are registered trademarks of Minnesota Mining and Manufacturing Co., St. Paul 6, Minnesota. General Export: 122 E. 42nd St., New York 17, N.Y. In Canada: London, Ontario, Canada.



**LOOK** how  
dispensers can  
work for you!



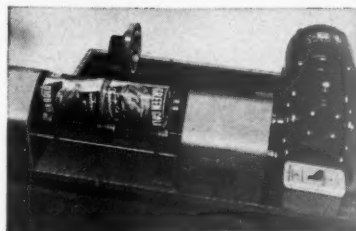
**QUICK SEALING** of small cartons is accomplished with this "Scotch" Brand Type M Box Sealer. Uses  $\frac{1}{4}$ " to  $\frac{3}{8}$ " tape widths. Object to be sealed is merely passed over roller automatically applying  $1\frac{1}{2}$ " strip of tape.



**THE EASY WAY** to handle multiple package units: *tape* them with this "Scotch" Brand S-69-Sealer. Uses  $\frac{1}{4}$ " to 1" tape widths. Applies predetermined lengths of tape to make 30 to 60 "deals" a minute.



**CUT WASTAGE** on hand operations with this "Scotch" Brand Definite Length Dispenser, Model M-92. Uses 1" or narrower tape widths. Predetermined length up to 4" is delivered in one lever stroke; repeat strokes deliver longer lengths. No guesswork; no waste!



**DIFFICULT SHAPES** are handled easily with the proper dispenser. This "Scotch" Brand Can Bundler can be used to seal covers on round containers, or to combine two or more cans end-to-end to form a combination "deal". Average speed: 20 units a minute.



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AIR CONDITIONING**

# 12<sup>th</sup> INTERNATIONAL HEATING & VENTILATING EXPOSITION

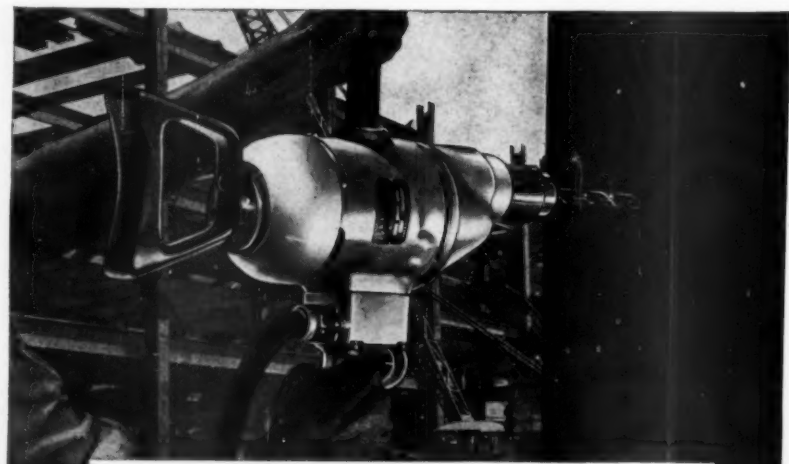
*Air Conditioning  
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Outstanding improvements in equipment for heating, ventilating and air conditioning all types of structures will be shown and described.
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If your factory, office or home requires modernization, you will learn important facts about systems, methods and procedures. If your business needs a lift, you can learn how to plan, sell or apply the finest in new equipment.  
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**"... abundance of rich ore near at hand will help to bring down the cost of titanium ..."**

**TITANIUM starts on p. 72**

ardous, for the highway exists in name only. The road is no more than a Jeep trail, passable at best by a spirited 7-ton truck. Grades are steep, curves are sharp, and streams must be forded. In the rainy season, the trail is completely impassable.

Transportation represents probably the biggest cost in Republic's total investment, estimated by reliable outsiders at \$10-million to \$15-million. The Mexican government has promised to provide an all-weather road for the 30 mi. to Port Angel, on the Pacific coast, for the later shipment of ore, but Republic must build a 6½-mi. road down the mountain to connect with it. And the machinery can't be brought in that way—Port Angel cannot yet accommodate big freighters, and the road from that port is even worse than the approach from Capalita.

When production gets rolling, the titanium concentrate will be trucked to Port Angel and shipped from a new deepwater pier there. Some of it may be transhipped by rail from Salina Cruz to a Caribbean port.

## III. Future

Republic Steel has no plans for going into the business of refining the concentrate. It will sell the titanium dioxide to refiners, then buy the titanium sponge for its own rolling and shaping processes, as it has been doing in the past.

The abundance of high-grade rutile ore only a fraction of the distance of the Australian deposits will help to bring the cost of titanium down, Republic believes. This will be still surer if new refining processes pan out.

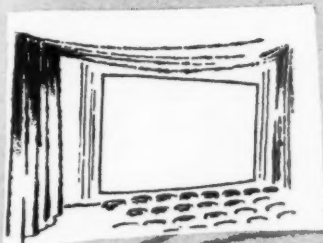
• **Comparison Shopping**—Titanium is now so costly—about \$4.50 a lb. for sponge and between \$10 and \$20 a lb. for finished shapes—that it is used only where high-temperature strength, high strength-to-weight ratio, and resistance to corrosion are paramount necessities. Thus, it is used in jet planes and other military equipment, in chemical plant plumbing, and in surgical hardware. But the price differential holds down other uses.

Titanium sheets, for example, still cost \$24,000 to \$50,000 a ton, compared with \$650 to \$1160 a ton for aluminum sheet, and the \$10-\$20 price for finished shapes compares with 35¢ to \$1 a lb. for stainless steel.

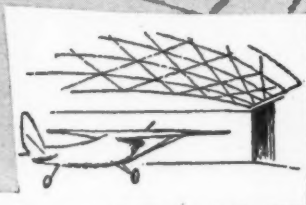


# phosphates

help control fire!



FYREX FOR  
FLAMEPROOFING TEXTILES



AMMONIUM PHOSPHATES FOR  
FLAMEPROOFING WOOD

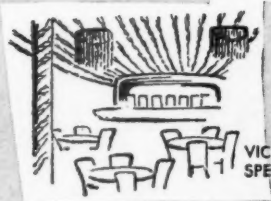


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Fabrics, wood, and paper can be flameproofed quickly and economically with Victor phosphates. Diammonium phosphate is combined with certain resins to provide flameproof coatings for wall-board and in the manufacture of flameproof paints. Ammonium phosphates are used to prevent after-glow in matches. Textiles are easily flameproofed while in production, or by spraying or immersion of the finished material with a solution of Victor Fyrex or ammonium phosphate. Special papers can be made flame-resistant with Victamide. If your product can benefit from being flameproofed, you'll find . . . *it pays to see Victor.* Write Victor Chemical Works, 155 North Wacker Drive, Chicago 6, Illinois. In the West: A. R. Maas Division, South Gate, California.



AMMONIUM PHOSPHATES  
TO PREVENT AFTER-GLOW



VICTAMIDE FOR FLAMEPROOFING  
SPECIAL PAPERS

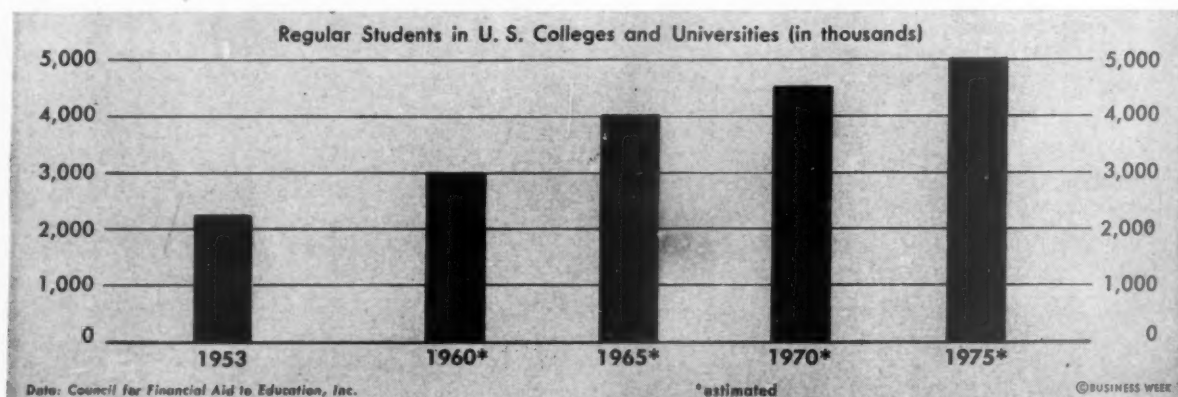
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# FINANCE



The nation's universities, with their classrooms already filled to overflowing . . .



. . . face an even greater flood of students. It will intensify already serious . . .

## Woes That Beset the Colleges

"High-class flophouses where parents send their children to keep them off the labor market and out of their own hair."

That is one definition of the U.S. college that has been circulating in the academic world—and causing controversy. But however much it may have been quoted, it is clearly not believed by businessmen nor by young Americans or their parents. The population of colleges is rising steadily.

Each spring finds business combing college graduation lists more feverishly

than ever in the search for new recruits. Each fall, more and more young men and women line up for enrollment. Over 25% of the nation's 18-to-21-year-olds now attend college, against only 4% at the turn of the century.

• **Trouble**—But despite their rising popularity, most privately endowed schools of higher education in the U.S. now find themselves in their worst financial crisis on record. Over half the nation's 900-odd private colleges were reported recently to be operating in the red; as many as 200 of them

actually were afraid of going under.

Indeed, the Council for Financial Aid to Education sees a need for some \$30-million annually just to overcome "present bona fide operating deficits on non-tax-supported colleges." And Dean Rusk, head of the Rockefeller Foundation, has warned that "higher education could well use today . . . \$300-million to \$400-million per year of new money not now available."

• **Cause**—All colleges, big and small, have felt an historic financial squeeze during the postwar years. Privately en-

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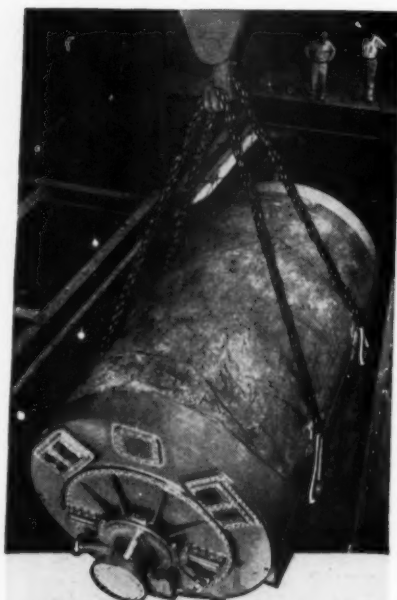
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dowed schools, which can't call on taxpayers automatically to make up their deficits, have been particularly hard hit. While the demand for higher education has been zooming, the capacity of private colleges to satisfy the demand has been lagging further and further behind.

The main cause of this trouble has been the price inflation of the last 15 years, and particularly of the period since V-J Day. The college dollar could buy roughly 100¢ worth of goods back in 1939; now, it hardly buys much more than 50¢ worth. This has really hurt.

Between 1940 and 1950, for example, college enrollments jumped 75%. That is a handsome sales increase. But in the same period, the educational income of colleges—measured in terms of purchasing power—rose only about 64%. Moreover, the picture has grown even darker since 1950. The Korean War touched off another rise in prices.

Along with inflation has come a rapid advance in science and technology. This made many courses far more costly for the colleges in 1950 than in 1940, and the trend continues today.

• **Endowments**—Few private colleges have ever had to depend solely on tuition fees for their income. They have drawn a good deal of income from endowment funds. But these funds no longer cover so large a portion of college costs as they once did. Here's why:

• Since 1939, tax collectors have been taking huge bites out of the incomes and estates of the wealthy—once the prime source of endowment gifts. The new-money flow from this source has dropped sharply.

• Due mainly to the federal government's "easy money" policies of the last 20 years, the yields from endowment investments have been cut sharply.

• Inflation has materially cut the purchasing power of endowment income.

The result: In 1940, endowment income provided private colleges with as much as 26% of all their income; in 1950, only 14%. Some observers estimate the figure is now 11% to 12%.

• **Tuition**—Thus, most privately endowed colleges must now depend more than ever on tuition fees for a livelihood. In 1950, these fees accounted for as much as 68% of all income—against 48% a decade earlier. They probably provide as much as 70% to 75% today.

Obviously, the increasing size of student bodies has caused some of this rise in tuition fees' relative importance. But that hasn't been the only cause. Like business generally, colleges have been forced to jack up sharply the price

of their product. In the decade ending with 1950, college tuition fees were hiked 50% to 60%. Many schools have since felt a need for even further markups. Yale University, for instance, after another year of deficit operations, has just raised its rates by 25%.

• **The Plant**—The future of college finances looks somber. It's apparent that college expenses, already burdensome, will increase.

Judging by present signs (page 78), the stampede after college training will continue for a long time. Hence, many private colleges will have to plunge into costly plant-expansion programs if they hope to handle their share of the increased student population.

Some privately endowed schools now have excess facilities that will help hold down future expansion costs. But observers say most of such facilities were built years ago. Two-thirds of the present capital plant of tax-supported schools has been built within the past 20 years, authorities say, but the private college group has done little recent "permanent" construction.

• **The Staff**—Another college expense likely to increase in the years ahead is that of teaching staff salaries. Indeed, many think this is the most burning fiscal problem the colleges face today.

The colleges must consider not only holding their current staffs, but also attracting new teachers to staff future plant enlargements. The second half of the problem could well prove costly.

Teachers' salaries today are not attractive when compared with pay scales in other fields. According to a survey made in mid-1952—and the picture probably hasn't changed much since—college professors' salaries, after adjustment for the increased cost of living, were actually 12% lower than in 1941-42. By contrast, industrial workers' "real wages" rose 55% in the same period.

• **Sources?**—Where will the colleges get the new money to meet these short-term and long-term needs?

Tuition fees can be hiked further. But nobody is sure just how much further. Colleges are no different from business in this respect: They, too, can price themselves out of the market. It already takes at least \$1,500 to \$2,000 a year to put a youngster through college. Educators wonder how much further they can raise these costs without losing many students of the kinds they want.

Endowment fund income might be upped further by cutting down on low-yielding, fixed-return investments and expanding common stock holdings. Most colleges have already taken steps in this direction. A survey of one group of private colleges, for instance, with \$1.7-billion of endowment funds, showed bonds accounting for 35% of





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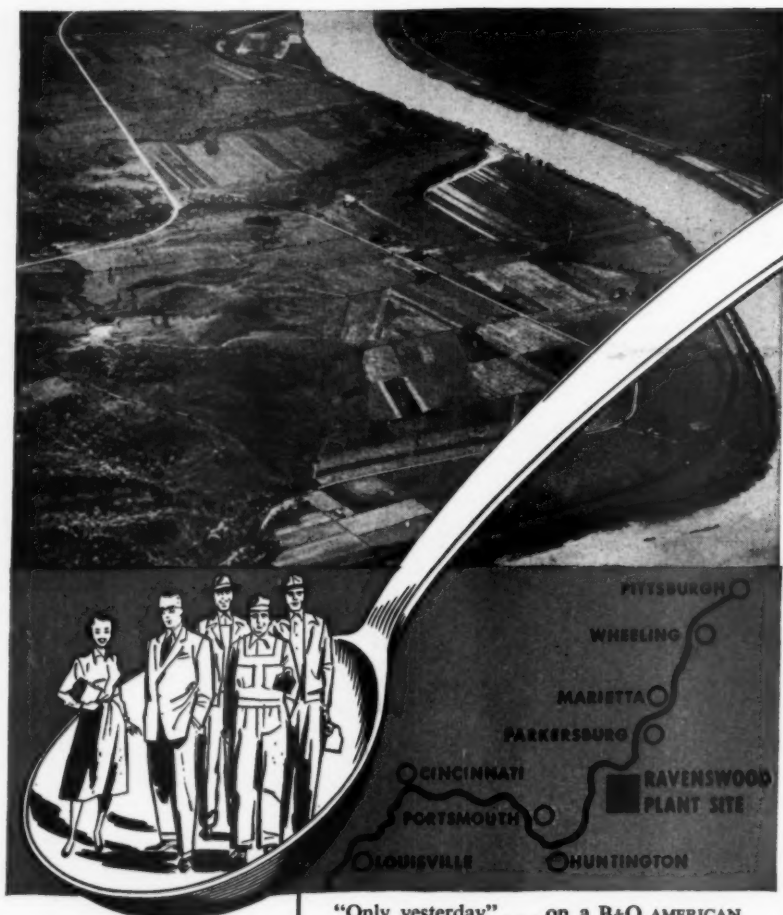
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Chicago	7	WABash	2-2211

all investments, preferred stock 6.5%, common well over 50%.

• **Harvard**—A shift toward common stock undeniably helps, but it doesn't cure all a college's fiscal maladies. Take the case of Harvard University.

It has gone in heavily for commons; they comprised 51% of Harvard's endowment holdings on June 30, 1954. And the stock operation itself has been highly successful. New-money receipts totaled \$8.3-million in the 1953-54 fiscal year; the market value of Harvard's fund increased by some \$57-million during the same period. Gains in common holdings were almost solely responsible for that part of the increase not accounted for by new money.

Harvard's common stock holdings have performed their income-producing function successfully, too. As a result of the commons' predominance, the fund's rate of return on cost was 5.09% last year—against 4.55% in 1950, 4.03% in 1948, and 4.84% back in 1937 (when commons made up only 30.7% of investments).

But all this has only eased, not solved, Harvard's fiscal problems. The university's investment income covered 42.4% of its costs back in 1940, only 31.4% last year—even though the income itself increased sharply, to \$12.2-million, during the period.

• **Other Hopes**—What other sources of income are there for a college? There are three main categories:

**Alumni.** Reportedly, there are now about 300 functioning alumni funds. Their efforts in 1953 are said to have dug up for the colleges some \$70-million in new money. Many think both their number and their success in raising money could grow under more intensive cultivation.

**Other individuals.** Millionaire philanthropists are apparently being taxed into extinction. But today there are record numbers of men earning \$10,000 and up who have donatable funds.

**Business.** Corporations are directly dependent on higher education to staff their growing, increasingly complex, and exacting operation. And the private liberal arts colleges, hardest hit financially, are playing a key part in supplying trained men and women for business.

Business has become increasingly aware of this (page 129). So has the federal government; the corporate income tax code allows deduction for donations to colleges. So have the courts; recent decisions have approved donations, against the wishes of some stockholders, even when there was no visible "direct benefit" to the corporation. And there have been no signs that the majority of stockholders disapprove of such donations.

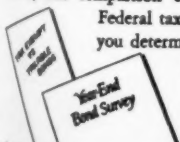
• **Upswing**—Business has been getting

# New Issues - 1954

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Amount of Issue	Tax-Exempt	Amount of Issue	Corporate	Underwriting Interest
\$ 8,200,000	ALEXANDRIA SANITATION AUTH., VA.† Var. Rates Sewer Rev. Bonds, Due 1960-76 & 1994	\$250,000,000	AMERICAN TELEPHONE AND TELEGRAPH COMPANY† 30 Year 3¼% Debentures, Due 1984 . . . . .	\$18,250,000
50,000,000	CALIFORNIA, STATE OF† Var. Rates Veterans' Bonds, Due 1956-75	18,000,000	BOSTON EDISON COMPANY First Mtge Bonds, Series E, 3% Due 1984 . . . . .	8,600,000
50,000,000	CALIFORNIA, STATE OF† Var. Rates School Bonds, Due 1956-80	15,000,000	CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC RAILROAD EQUIPMENT TRUSTS, SERIES SS & TT, 2¾% & 2½% Equip Tr Cfs, Due 1955-69 (2 issues) . . . . .	6,000,000
33,100,000	CHICAGO, ILL.† Var. Rates Bonds, Due 1955-72	50,000,000	THE COLUMBIA GAS SYSTEM, INC. 3¼% Subordinated Debentures, Due 1964 . . . . .	10,000,000
5,000,000	CLEVELAND, OHIO† Var. Rates Elec. Rev. Bonds, Due 1959-78	40,000,000	CONSOLIDATED GAS ELECTRIC LIGHT AND POWER COMPANY OF BALTIMORE First Ref Mtge SF Bonds, Series Z, 3%, due July 15, 1989 . . . . .	11,000,000
10,000,000	DELAWARE, STATE OF† 1.70% Bonds, Due 1955-74	25,000,000	CONSOLIDATED NATURAL GAS COMPANY 3% Debentures, Due 1978 . . . . .	10,000,000
10,000,000	FAIRFAX COUNTY, VA. Var. Rates Sewer Bonds, Due 1958-89	16,000,000	DUQUESNE LIGHT COMPANY First Mtge Bonds, Series due July 1, 1984 (3¼%) . . . . .	9,350,000
16,942,000	FLORIDA, STATE BOARD OF EDUC. OF Var. Rates Rev. Bonds, Due 1955-75	10,000,000	FLORIDA POWER & LIGHT COMPANY First Mtge Bonds, 3¼% Series due 1984 . . . . .	4,950,000
5,000,000	FORT WORTH, TEXAS† Var. Rates Bonds, Due 1955-79	30,000,000	HOUSTON LIGHTING & POWER COMPANY First Mtge Bonds, 3% Series due 1989 . . . . .	4,450,000
10,600,000	HOUSTON, TEX.† Var. Rates Bonds, Due 1955-79	21,000,000	ILLINOIS CENTRAL EQUIPMENT TRUSTS, SERIES 38, 39 & 40 2½% & 2¾% Equip Tr Cfs, Due 1954-70 (3 issues) . . . . .	12,300,000
6,000,000	LANSING, MICH. Var. Rates Bonds, Due 1957-76	103,000,000	ILLINOIS CENTRAL RAILROAD COMPANY First Mtge 3¼% Bonds, Due 1980, First Mtge 3¾% Bonds, Due 1989 & 3½% Sinking Fund Debentures Due 1980 . . . . .	19,800,000
6,000,000	MEMPHIS & MEMPHIS CITY SCHOOLS, TENN. Var. Rates Bonds, Due 1955-84 (3 issues)	50,000,000	THE KANSAS CITY SOUTHERN RAILWAY COMPANY† First Mtge Thirty Year 3¼% Bonds, Series C Due 1984 . . . . .	3,150,000
60,000,000	MICHIGAN, STATE OF† Var. Rates Korean Veterans' Bonds, Due 1956-70	15,000,000	LACLEDE GAS COMPANY First Mtge Bonds, 3¼% Series due Dec. 1, 1979 . . . . .	5,450,000
6,850,000	MONTGOMERY COUNTY, MD. Var. Rates Bonds & Cfs, Due 1955-84	18,000,000	LOUISIANA POWER & LIGHT COMPANY First Mtge Bonds, 3¼% Series due 1984 . . . . .	9,950,000
45,558,500	NEW YORK SCHOOL DISTRICTS (Various) Var. Rates Bonds, Due 1954-84 (25 issues)	15,000,000	METROPOLITAN EDISON COMPANY First Mtge Bonds, 3¼% Series due 1984 . . . . .	5,050,000
50,000,000	NEW YORK STATE THRUWAY AUTH.† Var. Rates Gen. Rev. Bonds, Due 1964-79 & 1994 (2 issues)	19,266,000	MONTREAL, THE CITY OF (CANADA)† Var. Rates U.S. Debentures, Due 1954-72 . . . . .	2,601,000
12,000,000	OMAHA PUBLIC POWER DISTRICT, NEB. Var. Rates Elec. Rev. Bonds, Due 1956-84	20,000,000	THE MOUNTAIN STATES TELEPHONE AND TELEGRAPH COMPANY 35 Year 3% Debentures, Due 1989 . . . . .	3,250,000
5,000,000	OREGON, STATE OF† 1¼% Veterans' Welfare Bonds, Due 1967	30,000,000	NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY 34 Year 3¼% Debentures, Due 1988 . . . . .	12,650,000
30,000,000	PENNSYLVANIA, GEN. STATE AUTH. OF Var. Rates Rev. Bonds, Due 1957-81	25,000,000	NEW JERSEY BELL TELEPHONE COMPANY 35 Year 3% Debentures, Due 1989 . . . . .	13,800,000
13,307,000	PENNSYLVANIA SCHOOL DISTRICT AUTHORITIES (Various) Var. Rates Rev. Bonds, Due 1955-94 (5 issues)	60,000,000	NORTHERN ILLINOIS GAS COMPANY† First Mtge Bonds, 3½% Series due January 1, 1979 . . . . .	4,000,000
20,000,000	PENNSYLVANIA, STATE HWY & BRIDGE AUTH. OF, Var. Rates Rev. Bonds, Due 1958-77	20,000,000	NORTHERN STATES POWER COMPANY (MINN.) First Mtge Bonds, Series due Oct. 1, 1984, 3¼% . . . . .	7,300,000
43,520,000	PHILADELPHIA, PA.† Var. Rates Bonds, Due 1955-80	30,000,000	OHIO EDISON COMPANY First Mtge Bonds, 3¼% Series of 1954 due 1984 . . . . .	7,450,000
5,000,000	PITTSBURGH SCHOOL DISTRICT, PA. 2¼% Bonds, Due 1955-79	20,000,000	THE OHIO POWER COMPANY First Mtge Bonds, 3¼% Series due 1984 . . . . .	8,000,000
20,000,000	PORT OF NEW YORK AUTHORITY† 1.70% Consol. Rev. Bonds, Due 1955-64	30,000,000	PACIFIC POWER & LIGHT COMPANY First Mtge Bonds, 3½% Series due August 1, 1984 . . . . .	3,700,000
335,000,000	POWER AUTHORITY OF THE STATE OF NEW YORK† Var. Rates Gen. Rev. Bonds, Due 1965-76 & 1993	50,000,000	THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY 35 Year 3¼% Debentures, Due 1989 . . . . .	10,050,000
8,500,000	SOUTH BEND, IND.† Var. Rates Sewage Rev. Bonds, Due 1956-84	12,000,000	PENNSYLVANIA ELECTRIC COMPANY First Mtge Bonds, 3¼% Series due 1984 . . . . .	10,000,000
20,000,000	SOUTH CAROLINA, STATE OF† 1.80% School Bonds, Due 1955-74	20,000,000	PUBLIC SERVICE COMPANY OF COLORADO First Mtge Bonds, 3¼% Series due 1984 . . . . .	11,550,000
23,610,000	STATE PUBLIC SCH. BLDG. AUTH., PA. Var. Rates Ref. Rev. Bonds, Due 1956-89	25,000,000	PUBLIC SERVICE COMPANY OF INDIANA, INC. First Mtge Bonds, Series K, 3¼% Due 1984 . . . . .	5,000,000
10,000,000	TAMPA, FLA.† Var. Rates Sew. Rev. Bonds, Due 1958-89	12,500,000	PUBLIC SERVICE COMPANY OF OKLAHOMA First Mtge Bonds, Series E, 3% Due 1984 . . . . .	3,950,000
7,250,000	WYANDOTTE SCHOOL DISTRICT, MICH. Var. Rates Bonds, Due 1955-72	50,000,000	PUBLIC SERVICE ELECTRIC AND GAS COMPANY First and Ref Mtge Bonds, 3¼% Series due 1984 . . . . .	7,700,000
\$116,586,204	ADDITIONAL TAX-EXEMPT BONDS—104 ISSUES	55,000,000	SOUTHERN BELL TELEPHONE AND TELEGRAPH COMPANY 35 Year 3¼% Debentures, Due 1989 . . . . .	7,000,000
Descriptive circulars or prospectuses and current quotations will be supplied for any of these securities upon request. * To December 31, 1954. † Issues headed jointly by Halsey, Stuart & Co. Inc. and others. All other issues were headed, or purchased and offered alone, by Halsey, Stuart & Co. Inc.		20,000,000	SOUTHERN NATURAL GAS COMPANY First Mtge Pipe Line SF Bonds, 3¼% Series due 1974 . . . . .	2,750,000
		190,000,000	TENNESSEE GAS TRANSMISSION COMPANY† First Mtge Pipe Line Bonds, 3½% Series due 1975 & 4¼% Debentures due 1974 . . . . .	8,446,000
		10,000,000	THE UNITED GAS IMPROVEMENT COMPANY First Mtge Bonds, 3¼% Series due 1979 . . . . .	5,700,000
		12,000,000	WEST PENN POWER COMPANY First Mtge Bonds, Series P, 3% Due 1984 . . . . .	4,200,000
		73,250,000	ADDITIONAL PUBLIC UTILITY BONDS . . . . . 14 ISSUES	48,910,000
		47,735,000	ADDITIONAL RAILROAD BONDS AND EQUIPMENT TRUST CERTIFICATES . . . . . 13 ISSUES	26,685,000

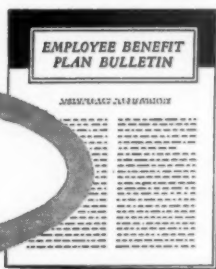
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## OPPORTUNITIES

MAY BE SOUGHT FROM, OR OFFERED TO, MANAGEMENT-MEN  
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more generous with gifts to support "outside" activities. Such donations totaled \$250-million in 1950, against only \$30-million in 1936. Last year, the total was \$350-million.

However, colleges have received far from a lion's share of this money. It's estimated that their take came to only \$50-million in 1950, \$60-million in 1953. And the private liberal arts colleges took in only a small portion of the college money. Many corporations apparently feel that gifts to specialized colleges and laboratories bring more tangible results.

Many businessmen argue that the thinking this represents is wrong. It's true, they say, that returns from donations to liberal arts colleges may be less tangible. But they insist that definite benefits emerge. When all is said and done, they point out, corporations can only operate freely in a stable environment; and liberal education helps maintain this needed stability.

• **Alternatives**—It's hard to guess whether business will continue expanding its donations to colleges. Educators hope fervently that it will; if corporations don't give even more freely than they have so far, many men believe, it's questionable that liberal arts colleges can survive as private enterprises.

Observers foresee these possible results of continued financial trouble: (1) a further weakening of the private colleges' position, and (2) a growing tendency to ask Washington for support. The second part of this prediction is truly frightening to many educators. They remember the story of a man who, one cold night, invited a camel to sleep with its head in his warm tent. Before long, the entire camel was inside.

## FINANCE BRIEFS

Bank of America at yearend set a batch of new records for nongovernmental banks. Peaks established by the West Coast giant included: \$9.2-billion resources, up 7.8% during the year; \$8.2-billion deposits, up 6.4%; \$457-million capital funds, up 7%.

Turnpike bond offerings in 1954 topped \$1.5-billion; Wall Street expects another \$800-million in first-half 1955. The Illinois Toll Highway Commission will soon offer \$390-million in new bonds, the largest municipal or corporate offering ever made.

The Bell System spent nearly \$1.4-billion on new construction in 1954, according to Cleo F. Craig, president of AT&T. Craig says spending "may be slightly higher in 1955."



# McGinnis Runs Into Roadblocks

New Haven head gets rebuff from tiny leased line, and maneuvers hinting Boston & Maine merger stir strong opposition; but New Haven earnings reports are rosy.

Patrick B. McGinnis, in his ninth month as president of the New York, New Haven & Hartford RR—the post he won in last April's rugged proxy fight—has run up against some snags in the last week in excursions outside the road's home territory.

He suffered one setback, in an attempt to gain a director's place on the board of the tiny Holyoke & Westfield RR in Massachusetts. And in maneuverings to weld the Boston & Maine RR to the New Haven, he has run afoul of some formidable opposition (BW—Jan. 1 '55, p24).

• **Retreat**—McGinnis early last week notified the Holyoke & Westfield that he wanted a spot on its board, since the New Haven holds 201 of the 2,600 shares outstanding. The great bulk of the stock of the 12-mi. line, which the New Haven leases, is held by the city of Holyoke, Mass., and five of its nine directors are elected by the city's board of aldermen.

The request from McGinnis brought a vociferous blast of opposition from the president of the aldermen, Hugh J. Corcoran. McGinnis, beating a hasty retreat, replied that he would not press his election to the road's board.

• **Foray**—Much more significant than the Holyoke skirmish was the revelation that friends of McGinnis had purchased some 42% of the common and preferred stock of the Boston & Maine, New England's second largest rail line.

Although McGinnis calls any merger talk "premature," it is widely believed that the heavy B&M stock buying is aimed at a union of that road and the New Haven.

McGinnis, while admitting that the buying was at his suggestion, has been stressing that it was done by "friends who are not connected with the New Haven." Some of these friends, however, are past New Haven directors; and one, Charles U. Bay, has been proposed by McGinnis as a new director. Another major figure in the B&M stock purchasing, former New Haven director C. Prevost Boyce, boasts that he was "the man who held the greatest number of votes and proxies" at the New Haven annual meeting at which McGinnis triumphed over Frederic C. Dumaine (BW—Apr. 24 '54, p33).

• **Antagonist**—McGinnis says that any B&M-New Haven merger is at least two years away—and indeed, it may never come off if Massachusetts Gov. Christian A. Herter succeeds in his

efforts to block it. Herter started two blocking actions as soon as he heard of the merger possibility. He cited a 48-year-old Massachusetts law prohibiting any one person or corporation from controlling more than one railroad. And State Atty. Gen. George Fingold wrote to Interstate Commerce Commission head Richard F. Mitchell, asserting that any such merger would violate federal law.

Herter, reiterating his aim of blocking a merger, then moved to set the February meeting of New England governors ahead to Jan. 12 to consider "current developments in railroad financing in New England."

• **Plans**—Many observers have wondered why McGinnis should want the B&M, which had a \$3.6-million deficit in 1954 through November. But McGinnis has already hinted at plans for eventual merger of 37 railroads east of the Mississippi and north of the Ohio River. A New Haven-B&M tie-up would be integral to this plan. McGinnis undoubtedly looks, also, to more substantial ties with Robert R. Young's New York Central RR, which interchanges much freight traffic with both B&M and New Haven.

• **Rosy Reports**—On the home grounds, meanwhile, McGinnis is presenting New Haven stockholders with some glossy earnings figures: for the first seven months of McGinnis rule, a net income of \$6.3-million, some 80% above the same period a year earlier. This shows up well against a 12% drop in gross revenues for the seven months, and overbalances a \$1-million net loss in the first four months of 1954.

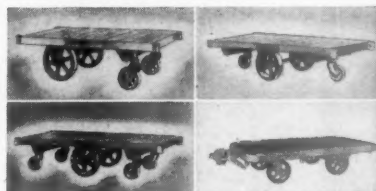
The showing has not been without cost, however. It resulted in part from heavy cutbacks in maintenance—already slashed nearly 35%, and slated for further cuts, according to McGinnis. These cutbacks, coupled with reduced federal income tax liability due to rapid amortization of passenger equipment, have enabled the road to pay off its fairly heavy preferred stock arrearage. But the tax advantage is temporary, and commuters claim they are already feeling the effects of the slash in maintenance.

Despite McGinnis' goodwill tours of commuter stations, and his family plan permitting half fare for all but one member of a family, commuter gripes continue. Now the New Haven is polling its commuters to get some index to future moves to bolster traffic.

## What's New In MATERIALS HANDLING

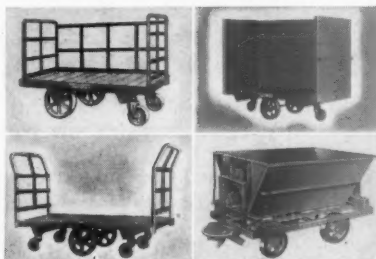
by TOMMY TRUCKER

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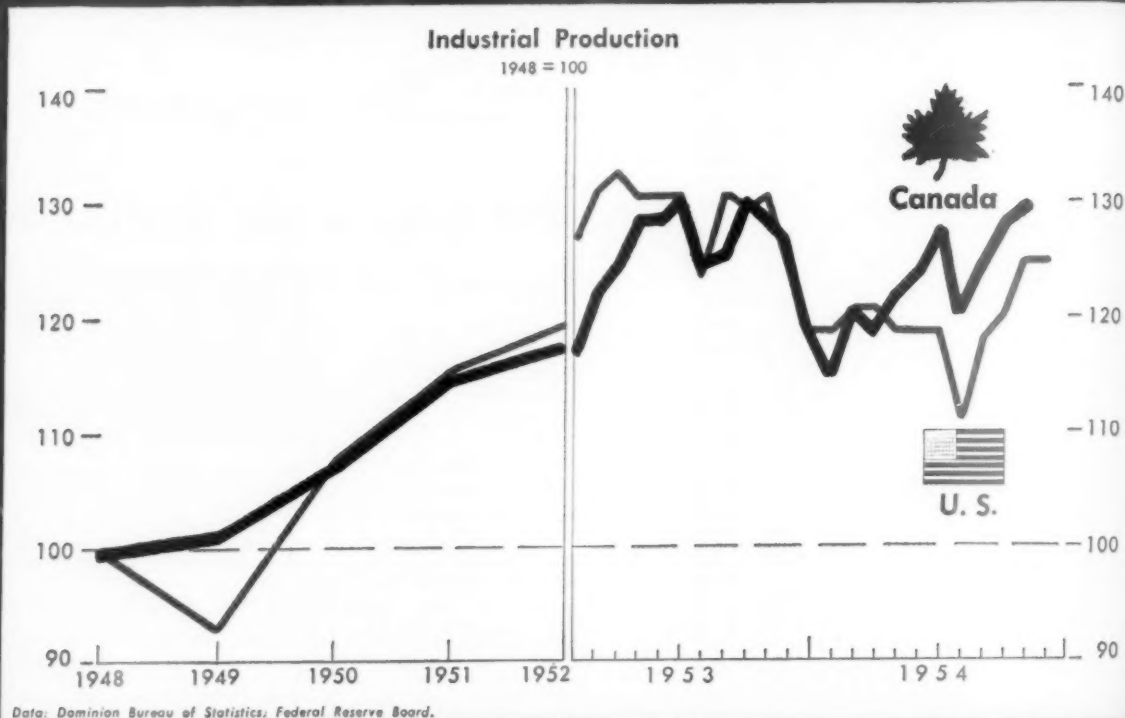


This Plan of choosing running gear to "carry" the load and superstructures to "hold" the load gives you "Job-Suited" Trucks or Trailers—Special Equipment at Standard Prices. Only THOMAS makes "Job-Suited" Trucks and Trailers and has a Representative in every Trade Area with the training, experience and "Know-How" to help you. Write, wire or phone for complete information and literature describing the complete THOMAS line of "Job-Suited" Trucks, Trailers, Casters, Wheels and "Jak-Tung" One-Handling Systems.

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# CANADA

Canada's growing industry held up well against U. S. downturns in 1949 and 1954...



## Outlook: Rebound and New Rise, Pa

In its yearend Business Review, the Bank of Montreal compares the post-war Canadian economy to a bright, completely redesigned automobile, which has everyone oh-ing and ah-ing about its opulent looks and undoubted horsepower. But there were those, says the Bank, who wondered how the new model would perform if the road turned from smooth asphalt to gravel—whether the “basic structure was as sound as the body was impressive.”

Last week, as they totaled up the figures of the year, Canadians seemed pleased—and perhaps a bit surprised—by their economy's roadability. They realize that the tests of 1954 could have been more severe. But they believe the tests indicate these things:

- Canada's economy may be growing more independent of the U.S. business curve than it is generally given credit for. The 1948-1949 business dip next door was hardly felt in Canada. The celebrated American re-

cession of 1954, expected a year ago to reverberate around the world, was shared only in part by Canadians (chart, above).

- The new year will be as good as 1954—which wasn't such a bad year, after all. Characteristically more restrained than Americans, Canadians are unanimous about that prospect. And most think that 1955 will be a good deal better.

- Questions—Nonetheless, the past year has made Canadians—and Americans who do business with them—aware of deeper problems of their economy, problems that may grow through 1955 and beyond. It may be that Canada must face a higher ratio of unemployment than in the past (chart, above right). Foreign competition is felt more and more by Canada's relatively low-output, high-cost manufacturing plant. Capital spending probably cannot keep the astounding pace of the postwar decade.

You find Canadians warning that the tempo of economic growth may be slower, for the time being at least.

### I. What Happened

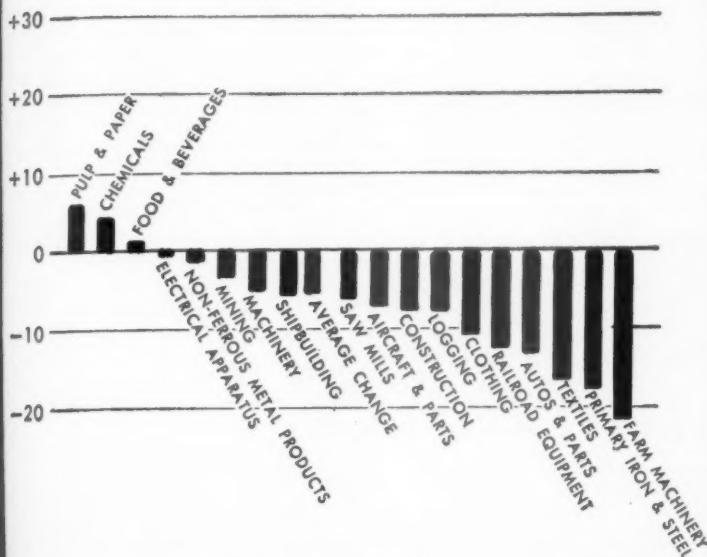
Every year since the war, Canada's gross national product has jumped an average of 5%. This year pulled it up short. Apparently, GNP will be 2% below 1953, \$23.8-billion against \$24.3-billion.

Last fall, a Canadian economist explained that the “law of averages was bound to catch up with us.” No nation, he said, that depends so heavily on factors often beyond its control—weather and foreign trade—can expect otherwise. Some 11% of Canadian national income is earned in agriculture; 23% of the national product goes into exports. A poor crop, and an over-all drop in sales abroad, hurts Canada more than most other industrial nations.

... But unemployment hurt in many lines —  
and may be a future problem.

### Employment in Goods - Producing Industries

Percent change from January-October 1953 to January-October 1954



Data: Dominion Bureau of Statistics; Bank of Nova Scotia.

©BUSINESS WEEK

## Pace Slower

Acts of God—rain, frost, hail, insects, disease—blighted Canada's year. The value of the wheat crop dropped \$500-million—almost the exact amount of the shortfall in gross national product. It was the smallest crop, and the poorest quality, since the war. While the drop helped get the government off the surplus hook, it shrank income in the prairie provinces. The snowball hit retail sales in the West, and markets for farm machinery, hardest pressed of all Canadian industry last year.

• **Fewer Exports**—Farm troubles were the largest factor in declining export business—around 8% below 1953. Wheat alone accounted for three-quarters of the drop. Exports to the U.S., three-fifths of the total, were off 5% in the first 10 months of 1954—perhaps the most important direct effect of the U.S. recession.

But while U.S. purchases of Canadian farm implements, copper and lead,

some grains and foodstuffs were smaller, demand for wood, wood products, and paper was hardly down at all. Those forest products account for half of Canadian sales in the U.S.—and their performance is a big factor of strength in the Canadian business outlook.

• **Manufactures**—Weakness in export markets and dwindling farm income reflected themselves in manufacturing—off 5% in the first nine months. Production of hardgoods slid 9%, softgoods 1%. Canadian steel mills produced 25% less ingot during the first 10 months, auto and truck output was off 29%. As a counterweight, all-important mineral production was up 10%. And between January and October, Canadians bought 347,059 television sets—a 74% increase.

A new, but not unexpected, difficulty complicated the Canadian businessman's life. Textile and electrical equipment manufacturers especially felt the squeeze from foreign competition. These lines, and some others, too, tend to blame "cheap labor" overseas, rather than declining home sales, for many of their troubles. The coming year



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will see a widening debate on tariff policy, as Canadians try to reconcile their preference for liberal, two-way trade with the apparent needs of a young, high-cost industrial economy for protection (BW—Nov. 27 '54, p172).

Like their American brethren, Canadian businessmen were emptying their stockrooms in 1954. But the rate of inventory liquidation was less than in the U.S.

• **Jobs**—If the wheat crop was the biggest single factor in Canada's downturn, unemployment was the most talked-about symptom. Starting in the fall of 1953, the "without-jobs, seeking-work" classification rose, reaching a postwar peak in March—318,000, or 6% of the work force. Since then, the figure declined to 179,000 in October (compared to 111,000 in October, 1953). Now, the usual winter season increase in joblessness has begun.

Most Canadian forecasters believe 1955 promises more jobs than 1954. But they are resigned to the view that there will be more unemployment than Canada has been used to. There's growing agitation for more government outlays to maintain "full employment." The trade unions—which tended to go easy on their demands in 1954—are expected to be more aggressive in 1955.

Meanwhile, the problem of productivity weighs heavily in some economists' thinking. They point out that much of Canadian manufacturing industry has wage scales close to those of the U.S., but without U.S. productivity. Here, they say, is a crucial problem for management and labor.

## II. Strong Points

At the same time businessmen were shaving inventory, Canadians were setting a new record in capital investment. And though more Canadians were out of work, over-all labor income and personal spending were higher in 1954 than in 1953.

Prewar, capital investment in Canada amounted to some 14% of the value of the national product. Since 1946, the increment has jumped each year—and the 1954 outlay looks as if it will total \$5.8-billion, a thumping 24% of GNP.

• **Patterns**—The increase last year was not across-the-board, however, and you can detect a changing investment pattern. Spending by business on new manufacturing plant is estimated to be off by 9%; spending on new machinery and equipment in agriculture, forestry, and construction by around 14%.

This decline was more than offset by increased investment in mining and oil, in financial and commercial services, utilities, and housing, by institutions, and by government departments.

Over-all, the government's budget expenditures—at \$4.3-billion—were down nearly 2% last year. But again, that decline was offset by increased spending by provincial and municipal governments.

• **Bulwarks**—New housing construction—at an estimated \$1.1-billion—was a prime bulwark of the Canadian economy, and the boom will probably continue into 1955. Surging population, higher incomes, and more liberal housing legislation and easier financing should see to that.

More Canadians—some 15.4-million of them—had more income last year and spent it. Despite unemployment, labor income was up slightly, thanks to higher average pay and a higher average of hours worked. The increased consumer spending went largely into housing, food, and services, while durable goods suffered. For 1955, some observers look for some shift back to hardgoods as Canadians equip their kitchens and fill their garages.

More Canadians, having more babies, buying more homes and TV sets—in short a rapidly expanding domestic market—that is one factor Canadians cite in maintaining that their country is becoming more independent of U.S. business.

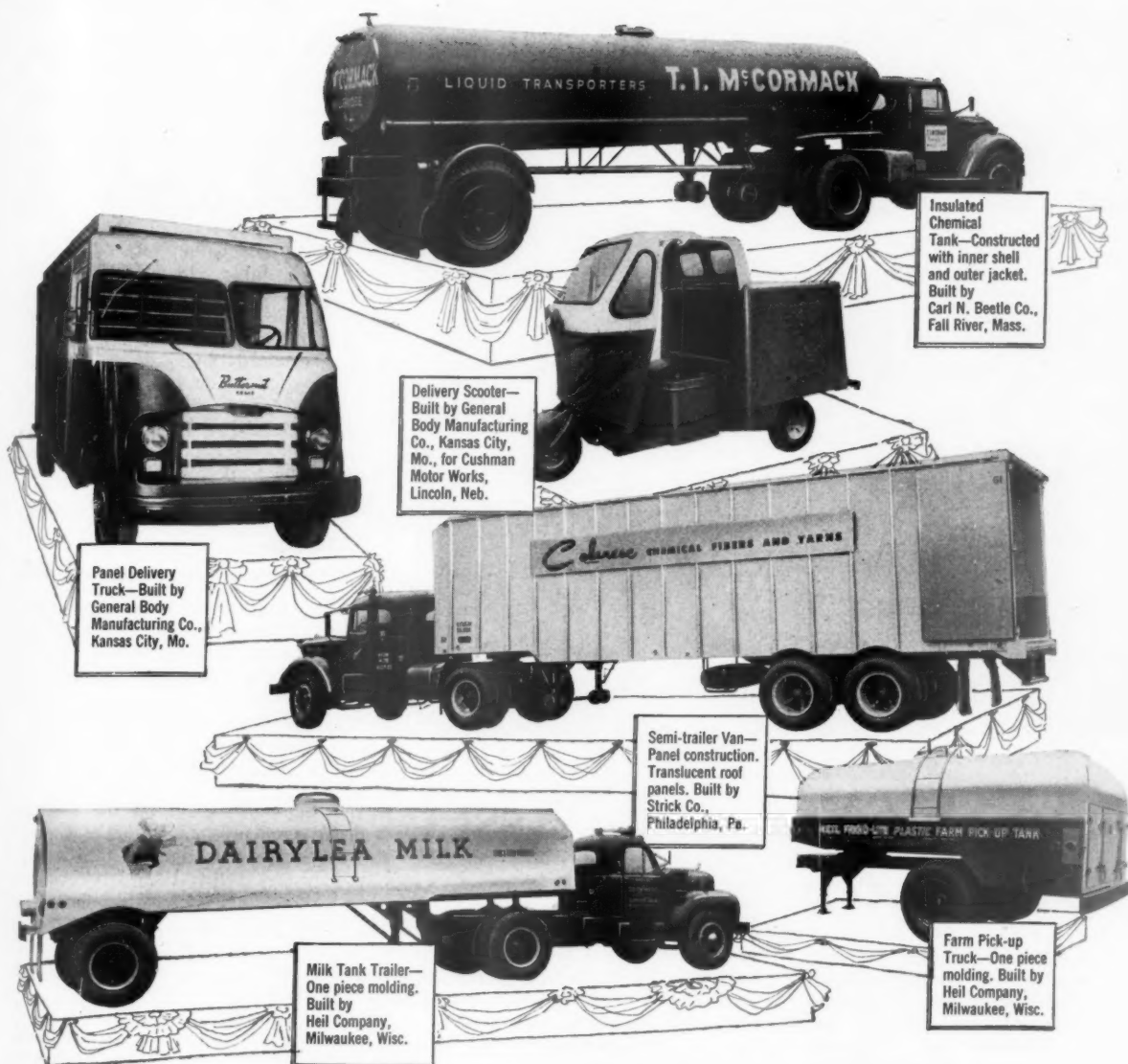
That's not to say that the idea—or the fact—of the two nations' close ties is fading. Most Canadian businessmen form their attitudes by reading, and hearing about, the same things that Americans do. They tend to make similar decisions—toward inventories, for example—without necessarily having the same forces at play. They expect U.S. business decisions to affect them, and plan accordingly.

Some believe in a rigid formula—Canada's economy follows the U.S. automatically, in four, six, eight months; what happens in the U.S. comes later to Canada, and perhaps more moderately. That wasn't true during the 1948-1949 U.S. downturn. But it was, to some degree, during 1954.

• **Buoyant**—Probably Canada has been spared the full effect because of the dynamics of its own home market—and the continued strength of foreign (especially U.S.) markets for its key natural resources (West Europe's recovery has helped immensely). Canadians are surprised—pleasantly—by the demand for their forest products and metals in a peacetime world, and plan to continue the natural resource developments—in ore, aluminum, and so on—that have marked the past five years.

Combine these factors—the home market and valuable resources—with liberal government policies encouraging domestic enterprise and billions of dollars in foreign investment, and you





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get a measure of the economy's buoyancy.

• **More Mature**—In some respects, Canada may be reaching a maturity of its own, similar—but on a much smaller scale—to that of the U.S. There are similar forces at work—for example, both nations have built high standards of living, which are dependent on high production, and high productivity, in industry.

But the intriguing idea of an economically more independent Canada doesn't mean that a full-scale depression in the U.S. would not hurt, and hurt badly. Nor have businessmen ceased to study anxiously the business climate south of the border. Right now, they are encouraged—and see in 1955 a better year than 1954, one that may take their national product up to the \$25-billion mark.

### CANADA BRIEFS

A plea for lower taxes was entered this week by the Canadian Manufacturers Assn. CMA wants a cut in personal income levies, complains that the top 49% rate on corporate earnings is too high. CMA also suggests abolishing excise taxes, easing estate taxes, exempting certain goods from sales taxes.

The big bull market on the Toronto Stock Exchange ran up the highest value of stock trading in TSE's 102-year history during 1954: \$1.35-billion, compared to 1951's \$1.2-billion, the previous record. All the key indexes—industrials, base metals, western oils, gold shares—closed within a hair of their 1954 highs.

The Seaway: Work on the Montreal section of the St. Lawrence Seaway project—where the first ground was broken on the project last November—stopped last week for the winter. Construction will begin again come April.

The first DC-6 service in Canada begins this weekend between New York and Toronto, increases American Airlines' intercity service to seven flights daily. Trans-Canada Air Lines will put its new turboprop Vickers Viscount on the New York-Toronto run in March. TCA's first Viscounts go into service Feb. 1, Montreal-Winnipeg.

Royal Bank of Canada reports this week that its assets passed the \$3-billion mark last year, a new peak in Canadian banking. . . . The way is clear for merging Bank of Toronto and the Dominion Bank into Canada's fourth largest bank, probably Feb. 1. Stockholders have approved, and Ottawa adds its blessing.

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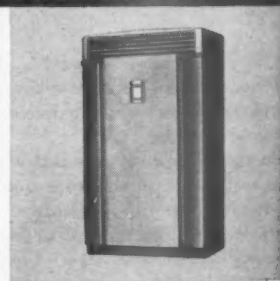
**GET FREE SCIENTIFIC ANALYSIS** by G-E trained experts of all the factors that determine the type of installation best suited to your space, including any special adaptations necessary for efficient, low-cost area or zone cooling.

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# INTERNATIONAL OUTLOOK

BUSINESS WEEK

JAN. 8, 1955

A BUSINESS WEEK

SERVICE

In the months ahead, Asia will be the scene of an intense diplomatic struggle between East and West.

You get a clue to this from two upcoming Asia conferences:

- The Southeast Asia Treaty Organization will meet in Thailand, in February. The U. S. will try to consolidate the anti-Communist front in Asia.
- An Afro-Asian conference just called for April in Indonesia. The Communists have engineered it as a way of breaking Western influence in Asia.

The SEATO session has some tough problems to tackle:

- How to keep all of Indo-China from being swallowed up by Ho Chi-Minh. Intelligence reports indicate that Communist infiltration of South Vietnam is making real headway.
- How to coordinate Western military strength in Southeast Asia, something that was left in the air at the Manila conference last September.
- What economic functions SEATO should have. How it should be linked to the Asian economic development program Washington is planning.

There are bound to be U. S.-French differences over the first problem—and U. S.-British differences over the other two.

Despite official silence, Washington and London are in a flurry about the Afro-Asian Conference that the Colombo powers (India, Pakistan, Burma, Ceylon, and Indonesia) have just called.

Except for South Korea, Formosa, and South Africa, all the self-governing governments of Asia, Africa, and the Middle East have been invited.

Thailand and the Philippines already have said no. But if the others attend, you will have quite a potpourri—U. S. allies like Japan and Pakistan; neutrals like India and Burma; Communist-oriented Indonesia, and Red China.

You are sure to find different countries playing different angles. And things won't go just the way the West-haters want them to.

But it's clear that the Chinese Communists master-minded this conference through Premier Ali Sastroamidjojo of Indonesia. It will give Peking its first chance to lead a big international conference.

The main Red goal probably is to revive the bugaboo of colonialism. On top of this, the Communists are sure to talk up the "U. S. occupation" of Formosa, U. S. intervention in South Vietnam, and the threat of U. S. imperialism.

There is no danger that India's Nehru and Burma's U Nu will join in any military arrangements with Peking.

It looks as though they plan to use the conference to force the Western powers to accept Red China as a member of the United Nations. And they may back this up with a threat to set up an exclusively Asian counterpart of the U. N.—something that would suit Peking just fine.

This will not endear Nehru and U Nu to the U. S. Congress, which will soon be considering an administration plan for boosting economic development in Asia.

# INTERNATIONAL OUTLOOK (Continued)

**BUSINESS WEEK**  
**JAN. 8, 1955**

Canada's dollar barreled into 1955 carrying a  $3\frac{1}{2}\%$  premium over U. S. currency. At midweek, it was quoted at 103.75¢—not so far below the high point of 104.34¢, in August, 1952.

The premium is the bane of Canadian exporters, and of producers competing with imports. Both groups had troubles last year (page 86). Ottawa shares their distaste for the situation, and has been buying U. S. dollars in a mild attempt to hold down its own high-flying currency.

Here are some of the things behind the Canadian dollar's hijinks:

- More and more U. S. money is going into Canadian securities—especially through the new open-end Canadian funds set up by Wall Streeters. Apparently the flow more than offsets a diminished pace of direct investment (into branch plants and businesses) and the drop off of Canadian financing in U. S. money markets.

- Canada's trade deficit with the U. S. last year was a good bit less than before. This, too, tends to strengthen the currency.

If nothing happens to shrink burgeoning U. S. demand for Canadian stocks, the Dominion's dollar is apt to keep its premium. There's no sign of weakness now. It will move down, however, if the New York-Toronto bull market runs out of steam.

Note this: Canadian provinces and municipalities have been discouraged from floating new bond issues here because of the premium. One observer suggests that if Canada's dollar moved down toward par, you would have up to \$300-million in new Canadian financing placed in New York within three months.

And that, in turn, would exert upward pressure on the Canadian dollar.

—•—  
The battle over U. S. foreign trade policy is officially open. A bill extending reciprocal trade for three years went into the hopper this week. And Monday, the President sends up his special message on foreign economic policy.

Protectionists, in Congress and in the lobbies, have just about conceded defeat on the main issue—renewing the trade agreements act for three years and giving the President authority to cut tariffs an extra 15%. They mean to dig in—and take their stand—on constitutional issues.

Here's the protectionist plan: Fight to limit strictly the President's powers to negotiating tariff agreements.


Administration plans go beyond this traditional authority. They include permitting the President to enter agreements on import quotas, export subsidies, the whole range of restrictive trade practices.

High-tariff people will concentrate fire on the General Agreement on Tariffs & Trade (GATT). It is to be submitted for Congressional approval in the spring. This group contends that both measures involve a further delegation of Congress' constitutional powers to the executive, and to an international organization. Hence, they are unconstitutional.

Protectionists hope to recruit support from constitutional purists and from states' rights advocates.

Limitation of the President's powers and a Congressional turndown of GATT could stall the whole reciprocal trade program, for a while at least.

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WEST GERMANY: READY TO GO

## From Border Police to Real Army

Now that the French National Assembly has ratified the London and Paris agreements, the rearmament of West Germany seems at last to be a sure thing. Barring an about-face by Moscow on German unification, Bonn expects by midsummer to start building a 500,000-man defense force. This force is slated to be Western Europe's most modern and atomic-minded.

What's more, the Adenauer government is convinced that it can build this force without any real strain on the German economy. West Germany is to have guns, exports, and butter—at least for the first year or two of the rearmament program.

• **Convenient Delay**—The ability to achieve such a goal is one of the inadvertent benefits of the long delay in getting German rearmament under way. If arming had started two years ago, when the U.S. hoped it would, the German economy would have been severely strained.

Paradoxically, though, the long delay has made the armament job politically more difficult. In the past two years, especially since France scuttled the European Defense Community, German youth has lost any enthusiasm it ever had for rearmament. This has

hardened the opposition of the Social Democrats and the labor unions to rearmament.

For these reasons, it's likely to be the political headaches, not the economic headaches, that will most plague the Adenauer government.

• **Three Strengths**—Three things go far to explain why no serious economic strain is expected from rearmament:

• **The strength of the West German economy**, which is now equal in industrial capacity to the whole of prewar Germany. Gross national product is expected to go up by 10% in 1955, just as it has during each of the past few years.

• **Defense spending is not being pushed up in a hurry.** It will hardly go up at all the coming fiscal year, and by not more than about 20% in 1956.

• **The U.S. is contributing about \$750-million in arms for the initial buildup this year and will add an equal amount during 1956-1957.** Also, the U.S. will help with blueprints and technical advice for the production of American-type weapons.

### I. Economics

The burgeoning strength of the Ger-

man economy doesn't mean that Bonn can rearm without any economic dislocation. There is all the difference in the world between starting a rearmament program at the top of a boom, as the Adenauer government is doing, and starting one just after a depression, as Hitler did in 1933-34. In fact, German industry is approaching rearmament this time with a lukewarm feeling. Industrialists are making good money from domestic and export orders, and they're leery about changing over to defense business.

• **Labor Pinch**—Over-all, the most serious bottleneck is likely to come from a shortage of labor. Unemployment in West Germany is now at an almost irreducible minimum. To take care of the army's manpower needs as production goes up, German industry will be called on to increase productivity substantially, perhaps also to import some Italian labor. In a situation like this, industry is bound to run into more serious labor troubles than it has had since the war.

Two industries in West Germany will be especially squeezed by rearmament. They are the construction and automotive businesses. The construction industry will lose skilled workers



to the army just as it is taking on a big barracks-building program—which means that domestic housing is sure to suffer. And as the automotive industry gets into production of army vehicles, it will be hard-pushed to keep both its German market and its foreign market fully supplied.

Still, rearmament will provide a useful stimulus for some segments of German industry. Textiles and shoes, now lagging, will get a boost from army orders. The shipbuilding industry will get needed orders from the revived German navy. And the machine tool industry, whose exports have dropped off a little recently, can count on orders from new armament factories to keep it running at capacity.

## II. Holding Down

On balance, then, the German economy looks able to handle rearmament without suffering any setback to the healthy expansion it has had over the past five years.

The fact is that the Adenauer government is holding the armament program well within West Germany's industrial and financial capacity. For the financial year starting Apr. 1, it has budgeted for defense 9-billion Deutsche marks—about \$2.1-billion at 4.2 marks to the dollar. This is only 1.8-billion DM more than Bonn is already contributing to occupation costs in the current fiscal year.

Of the total 9-billion DM budgeted for military expenses in the 1955-56 fiscal year, 3.2-billion DM must go as "support costs" to the Western allies that now maintain troops in Germany. The rest will be used for West-Germany's own defense program.

• **Under Control**—By 1956 the total may go up to the 11-billion marks and by 1957 to 13-billion. Even so, Finance Minister Schaeffer expects to pay for all defense costs out of current income. No deficit financing is planned or likely to be necessary. Nor is any increase in taxes. In fact, tax rates are going down this year, and further tax cuts are in the works. Total tax revenue is going up, of course, as the economy expands.

The government will keep tight control over procurement. Although the defense office will handle procurement contracts, Economics Minister Erhard will decide top-level procurement policy. This means that the entire defense buildup will be solidly in civilian hands; there will be no Hitler-type federal armament office under the military.

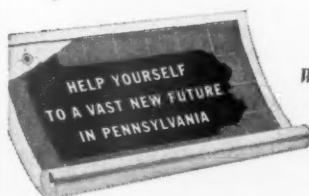
Adenauer himself plans to devote less time to foreign affairs, more to solidifying civilian control over the

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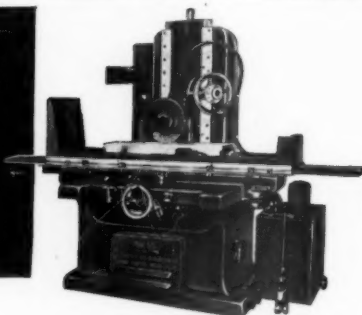
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new army and general staff. He is known as a hater of traditional German militarism, and he will keep tight control as long as he has the chance.

### III. U.S. Aid

It would be impossible for West Germany to rearm in this way if it weren't for the help the U.S. contributes. As the first of the planned 12 divisions come into being, they will be entirely equipped with U.S. heavy equipment.

About \$750-million in U.S. military equipment for Germany is already stocked, some of it in German warehouses. This equipment can be turned over to the Germans in a hurry. Then, the U.S. plans to contribute gradually another \$750-million worth of arms. Deliveries will be timed to tie in with the equipment that should be coming out of German plants by the end of 1956.

• **Technical Aid**—On top of this, the U.S. has agreed to help German industry get into production on a wide range of military items. In other words, German plants will be able to get blueprints and technical help wherever they want to produce American-type weapons.

Most of the arrangements will be made directly with the U.S. Defense Dept., but in the case of communications equipment, for example, there are likely to be some private licensing agreements between German and American companies. Something of the same sort may be worked out between West Germany and Britain.

There are several advantages to this kind of setup. For one thing, it will put German industry into arms production more quickly and more economically. Even more important, it will lead to the standardization of weapons in the whole European defense system.

### IV. Politics

From the angle of domestic politics, building a German army doesn't look so easy as it did a year ago. At that time, Adenauer's sweeping election victory seemed like a popular endorsement of his rearmament policy. But it's clear now that the German people were backing Adenauer more for his European integration policy than for any eagerness to rearm.

• **Antimilitarism**—German youth just isn't interested today in uniforms, partly because it had a stomachful of Hitler's mad militarism and partly because it now has so many promising opportunities in civilian life. This shows up in the small number of young Germans who have been making preliminary applications for army careers.

Apparently the Germans, the dreaded militarists of the Western world, don't want to march any more.

This trend has encouraged the Social Democrats to take a stronger and stronger anti-rearmament stand. In this, they have been getting the support of the powerful German trade unions.

The Social Democrats still don't have enough votes in the Bonn parliament to hold up Adenauer's program. But recent elections, especially the one in Bavaria, have shown that their popular support is growing.

## BUSINESS ABROAD BRIEFS

**U.S. banking for Near East:** National City Bank of New York will open a branch in Cairo this spring, the first American bank in the area. National City says the new branch is in recognition of Egypt's forward strides. It also ties in with the many U.S. firms making their area headquarters in Cairo.

**India's steel expansion plans continue to boil** (BW-Dec.11'54,p116). Now Tata Iron and Steel Co. has proposed to expand further its planned capacity of 921,000 tons by 500,000 tons by 1960 if it can round up the more than \$100-million of capital required from the Indian government and foreign sources. But New Delhi is sitting tight awaiting a preliminary report this month from a Russian steel delegation that has toured India (BW-Oct.2'54, p150).

**Ritz, a name Europeans know well, will soon mean more than a hotel to them.** National Biscuit Co. has licensed Motta, SPA, of Milan, Italy, to produce its Ritz and Premium Saltine crackers for the European market.

**Oil fever has hit France:** The first public issue of a new firm, FINAREP, at \$8.3-million was subscribed on the first day. FINAREP is a semi-public corporation set up to attract private funds for oil and gas exploration in France and its overseas territories.

**Largest wire-drawing mill in Latin America is planned by Cia. Belgo-Mineira,** Brazilian steel producer, at Belo Horizonte. Annual output: 100,000 tons.

**Four more exporters are getting lines of credit under Export-Import Bank's capital goods financing scheme** (BW-Oct.9'54,p160). They range from \$2.5-million (for Minneapolis-Moline Co.'s farm machinery) to \$225,000 (for Athey Products Corp.'s earth-moving tools).

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## Assassins

President's death may lead to turmoil . . . Oil crack-down in Mexico . . . Strike in Northern Rhodesia . . . South Africa cancels gold guarantees.

Troubled Central America got another jolt this week when assassins shot down Panama's 28th president, Jose Antonio Remon.

Remon—"Chichi" to his tightly disciplined National Police Corps—was not above a little gun-play himself. Since 1941, when he helped oust Arnulfo



JOSE ANTONIO REMON

Arias, the country's pro-Nazi president, he and his police (Panama's only armed force) had been king-makers.

In 1952, Remon decided to take the presidential reins personally. And he gave the country one of the cleanest governments in its history.

Last week, Remon was close to accomplishing his prime target for the country: the renegotiation of the 1936 treaty by which the U.S. rents the Panama Canal Zone. Reportedly, Remon was dickering for a yearly rental boost from the current \$430,000 to \$5-million. He didn't get it, but Washington was offering—after more than a year's negotiations—to pay \$1,930,000. In addition, the U.S. agreed to turn back land not used in operations of the Canal. U.S. authorities also set out to placate local commercial interests by putting Army commissaries off-bounds to all but American civilian and military personnel.



# Shots Upset Panama

Panama's Ambassador Ernesto de la Ossa told a nationwide TV audience from New York that the treaty would still go through. But it looks as though Panama is in for more political instability, the kind that has dogged the U. S. ever since the Canal was built.

U.S. oil companies are feeling the pinch this week in Mexico, where an embargo on all imports of lubricating oils is expected momentarily. The situation resembles that in Finland (BW-Dec.11'54,p111), where three Western oil companies would have to distribute the products of a government refinery if they stay in business.

The Mexicans are campaigning to cut dollar purchases abroad. They spent between \$5-million and \$10-million last year for lubricant imports—and every little saving helps.

Since the Mexicans nationalized their oilfields in the late 1930s, they have continued to let foreign oil companies distribute lubricants. Pemex, the government oil monopoly, didn't make enough of these. On Jan. 12, Pemex will dedicate its new \$15-million refinery and lubricants plant at Salamanca. It could supply all of Mexico's needs, maybe even some for export. So if the oil companies want to keep on distributing, the Mexican government will ask them to buy Pemex products in bulk.

Pemex would like that, since it knows the public still hasn't enough confidence in its trademark. Besides, it needs the help of foreign engineers to keep the complex refinery at Salamanca running, and the oil companies are the place to find them.

According to rumor, the 12 companies now operating in Mexico—including Socony-Vacuum, Quaker State, and Tide Water—will probably go along. Some of them also consider building lubricant plants of their own, using Pemex's basic petroleum as supply, if they can get long-term contracts with Pemex.

Early and confused reports from Northern Rhodesia's Copperbelt last week of a strike by the African Mine-workers Union were an ill omen for the area's troubled race relations (BW-Nov.13'54,p148).

Supposedly, the Negro workers—some 18,000 of the 48,000 who work the mines in the area—are striking only for higher pay. Some observers interpret the strike for a \$1.42-per-shift increase as another move toward advancement of Africans to better jobs. The

fact is that many Negroes would settle for more wages whether or not it brought the skilled jobs their leadership is fighting for.

So far, the companies, which support a recent government report recommending advancement of Africans, have refused the new wage demands. And they have refused to seek arbitration now that the workers have already struck.

How long the Africans, who claim a total union membership of only 25,000 in the area, can hold out remains to be seen. That's especially true since white workers, after first refusing, have agreed to take over some of the Africans' jobs while the strike continues. This action isn't likely to increase racial harmony between Negro and white workers, especially since the companies accuse the whites of using "equal pay for equal work" as a way to block upgrading of Africans.

Farther south—in Rhodesia's neighbor, the Union of South Africa—Nationalist extremists of the new government (BW-Dec.11'54,p104) took their first of many promised swats at the British. Last week, the Union government canceled its five-year-old agreement to sell annually not less than \$140-million in newly mined gold to the Bank of England.

For the moment, the cancellation of the agreement doesn't mean much—the Union has been voluntarily selling Britain more than the minimum of gold. But if it is a gesture of growing trade hostility toward Britain, it could have serious consequences for London. South African trade and gold are an important prop for the British economy.

Under this agreement, Britain got a guarantee of so much gold, London threw no hitches in the way of movement of capital to South Africa, and the South Africans took care of their own dollar needs through the sale of gold directly to the dollar area.

As the agreement has worked out, however, South Africa has needed more sterling than her exports to Britain and the capital flow from Britain have supplied. So Pretoria has been selling more than the gold minimum to Britain each year, anyway. It looks as if that's likely to continue, especially since the London gold price is more attractive than the New York price.

South Africa's Nationalists will have to balance this fact, and their great need of British capital to develop the country, with their political likes and dislikes.



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# THE MARKETS

## COMMODITY PRICES: W

Dec. 1947=100

140 —

BUSINESS ACTIVITY ALL-TIME HIGH

130 —

120 —

COMMODITY PRICES ALL-TIME HIGH

110 —

Business Activity

100 —

Commodity Prices

90 —

80 —

70 —

1948

1949

1950

1951

Data: Moody's Investors Service; BUSINESS WEEK

## They Haven't All Felt

Business activity has been picking up speed ever since September, but you'd never know it by looking at commodity prices as a whole (chart).

Even the chart doesn't tell the whole story of the disparity between the two indexes. Since the chart was prepared, BUSINESS WEEK's index—a measure of trade and industry adjusted for seasonal variations—has risen to a new all-time high. On the other hand, the cash commodity price index compiled by Moody's Investors Service is still meandering. Since reaching its record peak in February, 1951, its course has been generally downward.

• **Ups and Downs**—Now more than 23% below the 1951 crest, the commodity index is just about where it was a year ago. This over-all stability, however, conceals the churning of prices that has gone on within the commodity group. Lately, many industrial raw materials have been rising in price while farm staples tilted down. A year ago,

food items such as spring hogs were going up while industrial materials such as steel scrap were sagging.

In 1955, the more recent trend—industrial staples up, farm goods down—is expected to prevail. However, the rise of factory raw materials has its limits, and a decline could come if purchasing agents should decide that their companies' production will taper in the last half of the year.

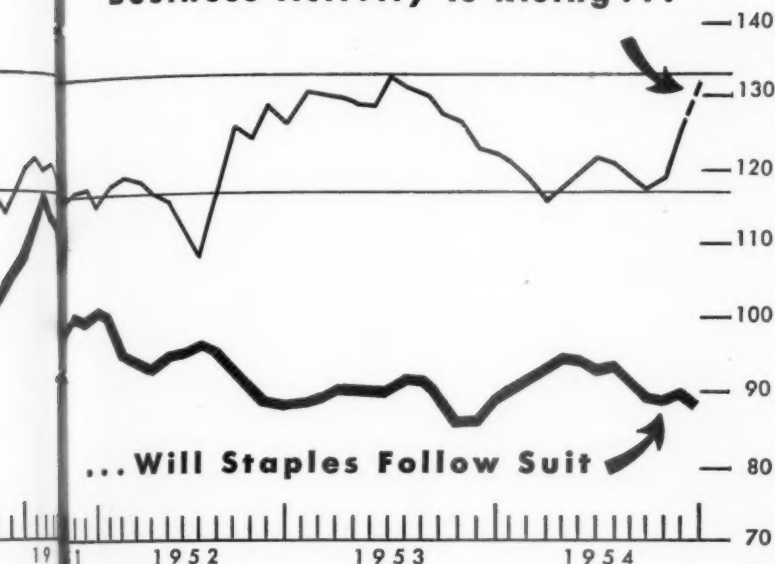
• **Auto Business**—Star performers in the commodity market in the first week of 1955 were steel scrap and natural rubber. Both climbed under the spur of the December record for auto output and the prospects of a record-breaking first quarter.

No. 1 heavy melting steel scrap rose at Pittsburgh to \$36.60 a ton. A year ago, it brought only \$31 a ton, and at one time during 1954 it sold as low as \$24 a ton. Demand rose as open-hearth furnaces poured out steel this week at 80.5% of capacity, compared

with 77%  
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(page 3)  
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## ES: Where to in 1955?

### Business Activity Is Rising ...



### ...Will Staples Follow Suit

## All Felt the Stimulus Yet

with 77.6% last week. Steel executives are optimistic about 1955 operations (page 31).

Natural rubber, also linked with high auto production, bounced up to 34.5¢ a lb. for rib-smoked sheets in the New York cash market before Tuesday's sharp spill in futures. This top price compares with 20.6¢ a lb. at the start of 1954.

• **Nonferrous**—Metal buyers see a continued tight market in copper. All through 1954, copper sold domestically at about 30¢ a lb. However, it is now changing hands in London at the equivalent of 36¢ a lb. And world production is threatened by a strike at Northern Rhodesia mines (page 100).

Lead closed the year at 15¢ a lb., compared with 13½¢ a year earlier. Zinc wound up the year at 11½¢ a lb., East St. Louis, 1½¢ higher than its price at the end of 1953.

Quotations of all three metals were stabilized during the year by govern-

ment purchases for the strategic stockpile, making up for a slump in industrial activity.

• **Foodstuffs**—On the food front, prospect of a larger spring pig crop seems to have eliminated price rises of the magnitude seen last year (BW-Jan. 1 '55, p60), and beef is expected to be plentiful, though not overabundant. Wheat, corn, and cotton prices during 1955 will be influenced as much by Congressional action on price supports as by weather. There are many in Congress who want to restore rigid high supports for prices of basic crops.

Coffee and cocoa were volatile last year. As 1954 began, coffee was selling a shade above 65¢ a lb.; when a shortage threatened, it zoomed to more than 93¢ a lb. in April; then it came down again to finish the year in a 66¢-68¢ range. Also on shortage threats, cocoa rose from around 49¢ a lb. to nearly 72¢ in August, then dropped back where it had started.

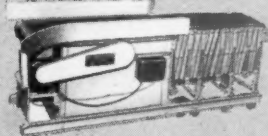


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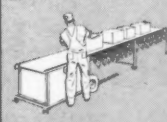
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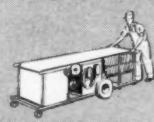
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## Buckling Down to Problem Solving

The audience in the picture above is listening to a technical discussion of what makes the managers of a business firm work—and of what could be done to make them work harder and more effectively.

Taken as a group, this audience was a fair sample of the 2,000-odd economists who descended on Detroit last week for the annual meetings of the American Economic Assn. and its sister societies. And taken as one item picked more or less at random from the program, the subject of this particular session was fairly typical of the things the economists were talking about.

The AEA convention, in turn, provided a cross-section view of what is going on in economics generally. The AEA meetings are a combination of a

job market, a social gathering, and a trade fair for an industry whose product is ideas. Looking at them as a whole, you can get a snapshot picture of the profession and the work it is doing.

• **Down to Earth**—The focus of that snapshot this year was unusually sharp. It was on problem solving and practical application. In the discussion, in the formal papers, and in the informal corridor talk, the same themes cropped up. The talk revolved around such questions as:

• How to use monetary controls to steer a boom without turning it into a recession?

• How to plan an orderly and workable development program for industrially backward areas?

• How to estimate the effects of automation in industry and plan one way or another for the absorption of workers whose jobs are taken over by machines?

• **Last Year**—The tone of this year's meetings differed subtly from that of last year's sessions in Washington (BW—Jan. 9 '54, p. 32). A year ago, the economists were much concerned with the immediate business outlook. With business generally swinging downward, they were worried about the ability of the U.S. to keep the recession from snowballing. Memories of the '30s haunted the corridor talk. The formal discussions had a lot to say about the problems of stability, the theory of the business cycle, and the threat of underconsumption in an economy that had built



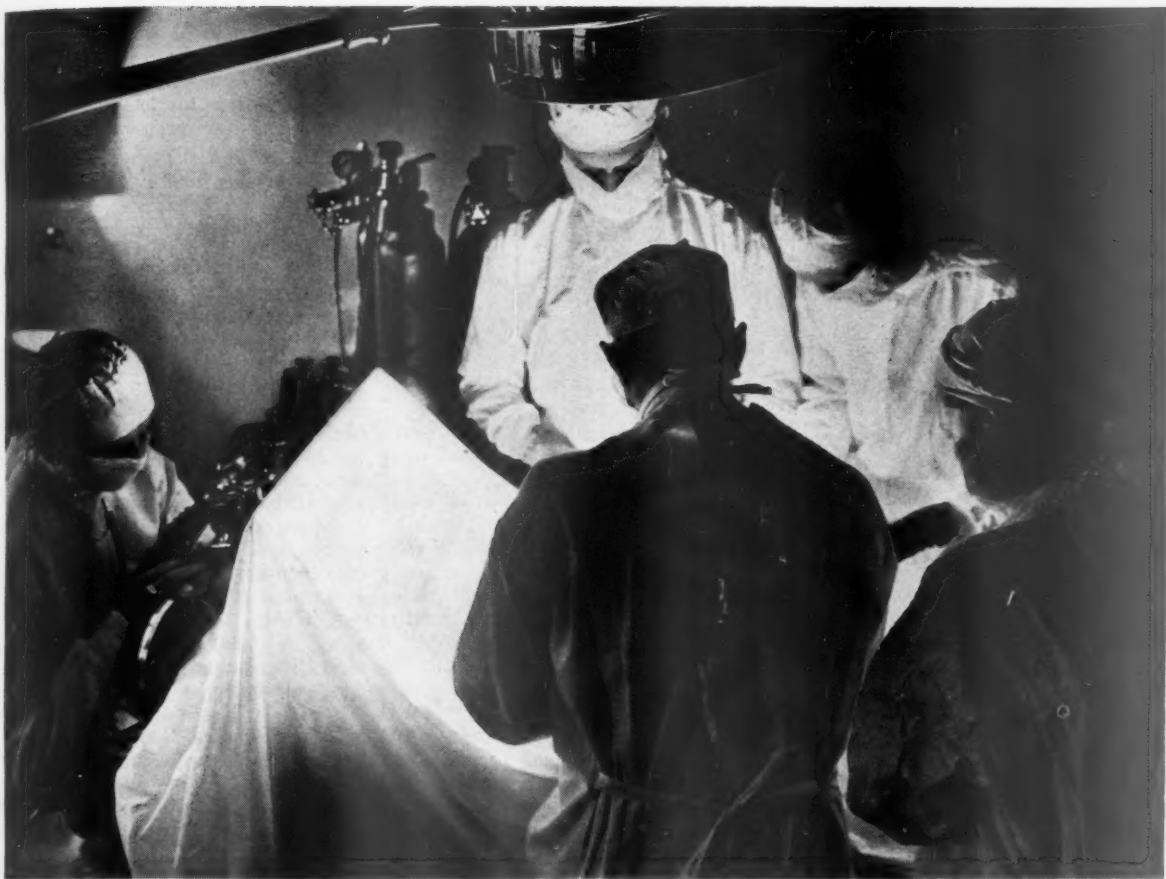


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Cost-cutting advantages of the lubricated plug valve stem from its unique design. Basically, it is the 20th Century counterpart of the ancient Chinese plug cock. A metal plug, with a hole in it, rotates in the valve body. When the hole in the plug lines up with the valve throat, the valve is open. When the plug is rotated a quarter turn, flow is completely cut off.

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up a production machine greater than any the world had ever seen before.

This year, the business outlook got scant attention. Most of the economists at Detroit took it for granted that 1955 will see an upturn. Their preoccupation was not with forecasting the swing of the next six months or 12 months, but with getting answers to specific problems they can see looming up in the future.

## I. The Young Men

In part, this difference in emphasis reflects the fact that this year business is prosperous while last year it was faltering. But a more important reason for the difference is the fact that this year the tone of the meeting was set by a new group of men—the younger economists, men who are now comparatively unknown but who will have to provide the great names of the future.

As a group, these younger men are more concerned with application than with theory.

• **Deliberate**—The stress on youth at the Detroit meetings was entirely deliberate. Simon Kuznets of Johns Hopkins, the outgoing president of AEA, set up his program to provide a cross-section of what the younger men in the trade were working on. To get his sampling, he wrote the top men in the economics departments of the big universities and foundations, asked them who their hot youngsters were and what they were doing. Then he organized his formal sessions around these men.

AEA's newly elected president, 71-year-old John D. Black of Harvard (cover), is intent on improving and enlarging the plan that Kuznets followed. He, too, is anxious to pull the younger economists into the limelight and put them to work on solving practical problems. It is time, he says, for "economists to use their theoretical knowledge in specific situations."

Black's own record is a good example of practicing what he preaches. An agricultural economist, he has made original contributions to the fundamental theory of diminishing returns and is an authority on farm production. At the same time, he has put his theory to work by studying individual farms and finding solutions to the problems that bedevil working farmers. His method has been adopted by the Agriculture Dept., in a nationwide program of analyzing specific farm problems.

• **Plans**—As Black sees it, the basic purpose of economics is to put people to work and develop the maximum use of resources within the capitalist system. Applied to the U.S. economy of 1955, this means learning "how to utilize our expanding output."

The program that Black intends to organize for the next AEA meeting will revolve around this theme. He wants some of the younger economists to discuss alternatives to the 30-hour work week as a means of balancing the increasing productivity of industry. He wants others to study the potentials for economic development in Latin America and Africa.

• **Characteristics**—You can get an idea of what all this means if you take a look at some of the problems the economists were tackling in Detroit and the methods they used to tackle them. Although the AEA program traditionally includes something for everybody, most of the subjects discussed showed that the younger men that Kuznets rounded up had several characteristics in common:

• They were concerned with the problems of growth rather than the problems of stability. The focus was on expansion and development, not on balance.

• They regarded the Western world as a single economic unit rather than as a loose collection of more or less independent domestic economies. To most of the researchers, it was practically self-evident that growth for the U.S. is inseparable from growth for the rest of the West. Hence, they were intensely interested in the development of backward countries and neglected areas.

• They were not afraid to make specific recommendations for action, and they were generally willing to risk their necks and other people's money on these recommendations. At one session, in fact, there was a spirited discussion of the political responsibility of economic forecasters working for government. The consensus: The economist whose forecast goes sour shouldn't be able to claim any professional immunity; he should be as expendable as anyone else who muffs his job.

• They were rebellious over the formal distinctions between the various social sciences—the lines that separate economics from sociology, psychology, and similar studies. They wanted to take what the academicians call an interdisciplinary approach to problems that they regard as too much for economics alone.

• **Applications**—In short, the men who set the tone at Detroit are thinking in terms of a large and growing world. And they are eager to apply their theoretical apparatus to solving the problems of that world's growth.

For instance, H. B. Chenery of Stanford, read a report titled *The Role of Industrialization in Development Programs*. This was an application of input-output theory and linear programming to the problem of advancing standards of living in Southern Italy.

Edith Penrose of Johns Hopkins reported on Limits to the Growth and Size of Firms. Her paper argued that the limits on expansion of a company are not economic but managerial.

C. R. Youngdahl of the Federal Reserve Board analyzed Monetary Policy in Recent Years and concluded that the old mechanisms of monetary control have proved effective as a means of guiding economic growth. (Several other economists, including Earl R. Rolph of the University of California, were less optimistic.)

Kuznets himself picked a tough, practical problem to wrestle with in his presidential address: Economic Growth and Income Inequality. In it he tried to show what happens to incomes in a developing country as its economy expands and becomes industrialized. He closed with the best statement that the meetings produced of the general conviction that the old lines between the social sciences will have to give way:

"If we are to deal with problems of economic growth of nations, there is no way out but to attempt to become more familiar with findings in such related social disciplines as can tell us something about population growth patterns . . . technological change . . . political institutions, and in general about patterns of behavior in human beings—partly as a biological species, partly as social animals."

## II. Back to the Salt Mines

This demand for a partnership with the other social sciences, this rising emphasis on problem solving, both suggest that economics right now is in the midst of an important change, a basic shift in directions and objectives. Fit this fact into the pattern of economic history, and the Detroit meetings represent a real milestone.

What has happened is this: U.S. economics has finally digested the so-called Keynesian revolution, the tremendous contribution to theory that came from the works of the late John Maynard Keynes.

In the course of the Keynesian revolution, economists designed themselves new weapons for dealing with a wide range of problems—the prevention of depressions, the control of inflation, the optimum use of a nation's resources for war and for peace, the stimulation of growth in both advanced and backward countries, the alleviation of human misery. They are now eager to try out these tools.

• **Back to Business**—No clean break with the past is involved. As Black says, "The rate at which you should feed dairy cows is also theory." Rather there is a general eagerness among American economists to get back to



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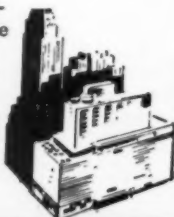


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the workaday uses of their science, to put power takeoffs on their theories and get some use out of them.

Traditionally, this has been the unique contribution of American researchers to economics—the hard-headed, detailed study of the actual, not theoretical, activities of men and institutions, their motivations, their conflicts, their evolution. Keynes, the Britisher, temporarily shook the Americans out of this pragmatic brand of economics with his mathematico-logical theories. But to Americans the British approach somehow never felt comfortable.

• **The Classic Laws**—Although Keynes was attacking the classical economics best represented by the work of David Ricardo and Alfred Marshall, he was attacking it with classical economics' own weapons.

The so-called classical method in economics was derived from the physics of the 17th and 18th Centuries—particularly from the static universe of Sir Isaac Newton. For Newton, the universe was a closed, unchanging system, whose operations could be reduced to a set of unchanging laws. There was movement in the universe, but it tended always toward a state of equilibrium—equal weights balancing forever on a fulcrum.

In classical economics, price became the fulcrum that perfectly balanced supply and demand. The distribution of the final product of the economy—the return to land, labor, and capital—was governed by timeless laws. It was the business of the economist to discover these laws and warn against their violation. To try to fight the laws, say by increasing labor's share of the product beyond the balance point, would be as disastrous as fighting the law of gravity by walking off a cliff.

• **Dissent**—Some of the stern old laws were modified as time went on, but the method remained the same. And in their effort to make their science as exact as possible, the formal economists of the latter part of the 19th Century resorted increasingly to the exactness of mathematico-logical analysis.

Eventually, this brand of economic reasoning provoked a characteristic American reaction—a revolt and secession. Although the British method still dominated the classrooms, the main line of American research veered sharply toward practical goals.

The most furious American assault on the Newtonian method was that of Thorstein Veblen. To oppose Newton, Veblen had a scientific hero of his own: Charles Darwin. As Darwin's universe was in the process of "becoming," not final and static like Newton's, so Veblen's economic system was a fantastically complex pattern of relationships in process of constant change. The

role of the economist in such a universe was not to deduce laws but to discover facts—and to indicate how these facts affected the process of change.

• **The Fact Finders**—It was Veblen's concern with facts about real institutions that gave American economics its decisively pragmatic basis. And it was Veblen's outstanding pupil, Wesley C. Mitchell, who led the National Bureau of Economic Research toward its precise measurement of the facts of American economic life. The whole concept of the Gross National Product and its components is the legacy of this trend in American thought. This technique of national income accounting emerged from the painful, dogged work of dozens of researchers, not from the deductions of any one genius. And it is probably as valuable a contribution to the world's comprehension and control of its economic destinies as anything ever devised.

### III. Theory to the Rescue

But American institutional economics, with its anti-theoretical cast, was ill-equipped to grapple with the sudden and virtually unprecedented economic problem of the Great Depression when it engulfed the Western world. U.S. economists could measure the extent of the calamity; but they could not cast much light on its causes or suggest methods of relieving it.

• **Keynesian Revolution**—The classicists were no better off. With 15-million workers unemployed, classical economists still had to argue that full employment was the normal state and that the economy would return to it—some day.

The stage was set for someone who would present the world with a brand new theory, a theory that would make sense out of the terrible things that were going on. It was set for J. M. Keynes.

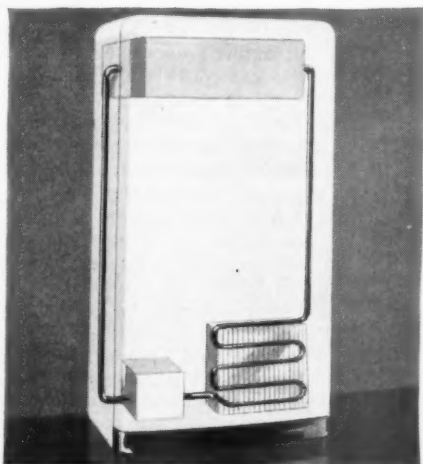
Keynes brought with him a complicated bundle of concepts—the marginal propensity to consume, the multiplier, the accelerator, the marginal efficiency of capital, liquidity preference, and many more. Some he had borrowed; some he had whittled out himself. Taken together, they provided a reasonable looking explanation of the disaster that tormented the world.

In essence, Keynes' theory was this: Full employment is not a normal equilibrium state of the economy. On the contrary, the level of employment (and of national income) is dependent on changes in how much of what they can people are willing to spend (the consumption function), on the rate of return over cost to investors (the marginal efficiency of capital), on how much cash investors want to hold (liquidity preference), and on the quantity of money





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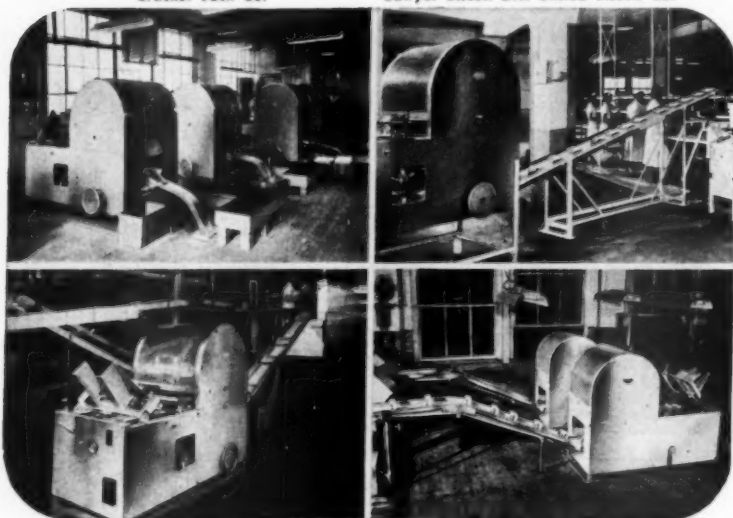
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fixed by the central bankers. All these independent variables can combine in an almost infinite number of ways. And they can come into equilibrium at varying levels of income and employment—not necessarily at a high level only. Thus, an economy can and does stabilize indefinitely with unemployed men and resources.

The lingo was formidable. The method was classical. But the conclusions were revolutionary: When times are bad, spend, don't save; when government revenue shrinks, increase expenditures and run deficits; forget the balanced budget; don't be afraid of inflation.

## IV. New Techniques

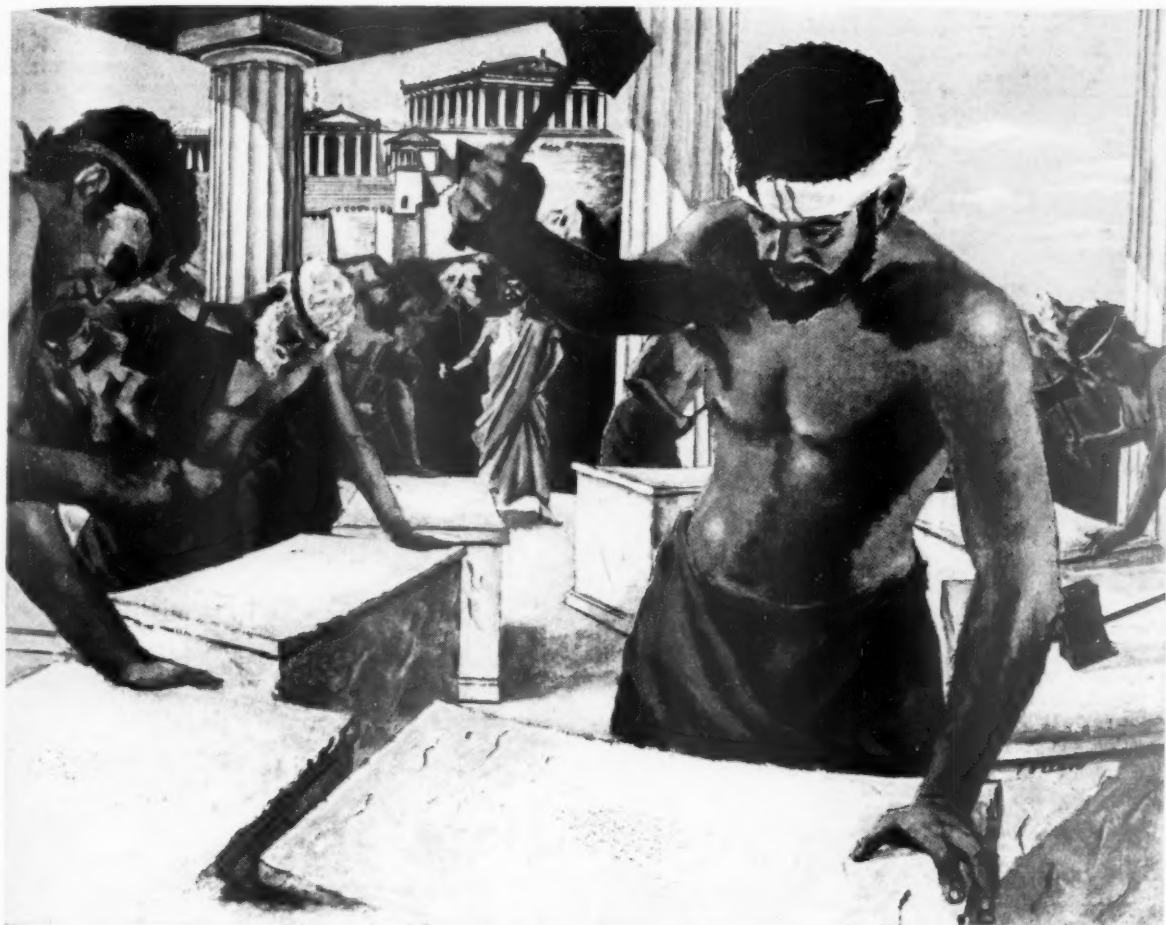
For years after the appearance of his General Theory in 1936, economists battled over his ideas—accepting them, rejecting them, trying to force them on each other. Almost overnight, the science of economics both in the U.S. and in Britain became intensely theoretical.

The fight continued through World War II, in spite of the demand for practical problem solving that came from mobilization. It flared up furiously in the immediate postwar period when many economists—perhaps most—were predicting a frightening jump in unemployment. And then it began to peter out. Some of Keynes' theoretical constructs were generally accepted; others were forgotten. Still others were modified. In any case, people began to lose interest.

Meanwhile, other developments were coming along. Most of them had nothing to do with Keynes, though they often owed something to the intellectual ferment that the Keynesian revolution had provoked. Interest gradually shifted to such things as input-output analysis, theory of games, welfare economics, moneyflows analysis, operations research, theories of growth.

• **And Now**—In Detroit last week, you would have had a hard time scratching up a fight over Keynes. You could, if you liked, agree with the economist who remarked in an aside, "We are all Keynesians one way or another." Or you could take the attitude that only a fraction of the Keynesian apparatus has survived while the rest has gone into the garbage. Either way, you would have had trouble finding anybody interested enough to argue.

For plainly, the old American passion for things that work is surging back into economics. There is general agreement with John D. Black's assertion that a theory does you no good unless you can use it. And there is a general itch to take the great theoretical discoveries of recent years and start getting some mileage out of them.



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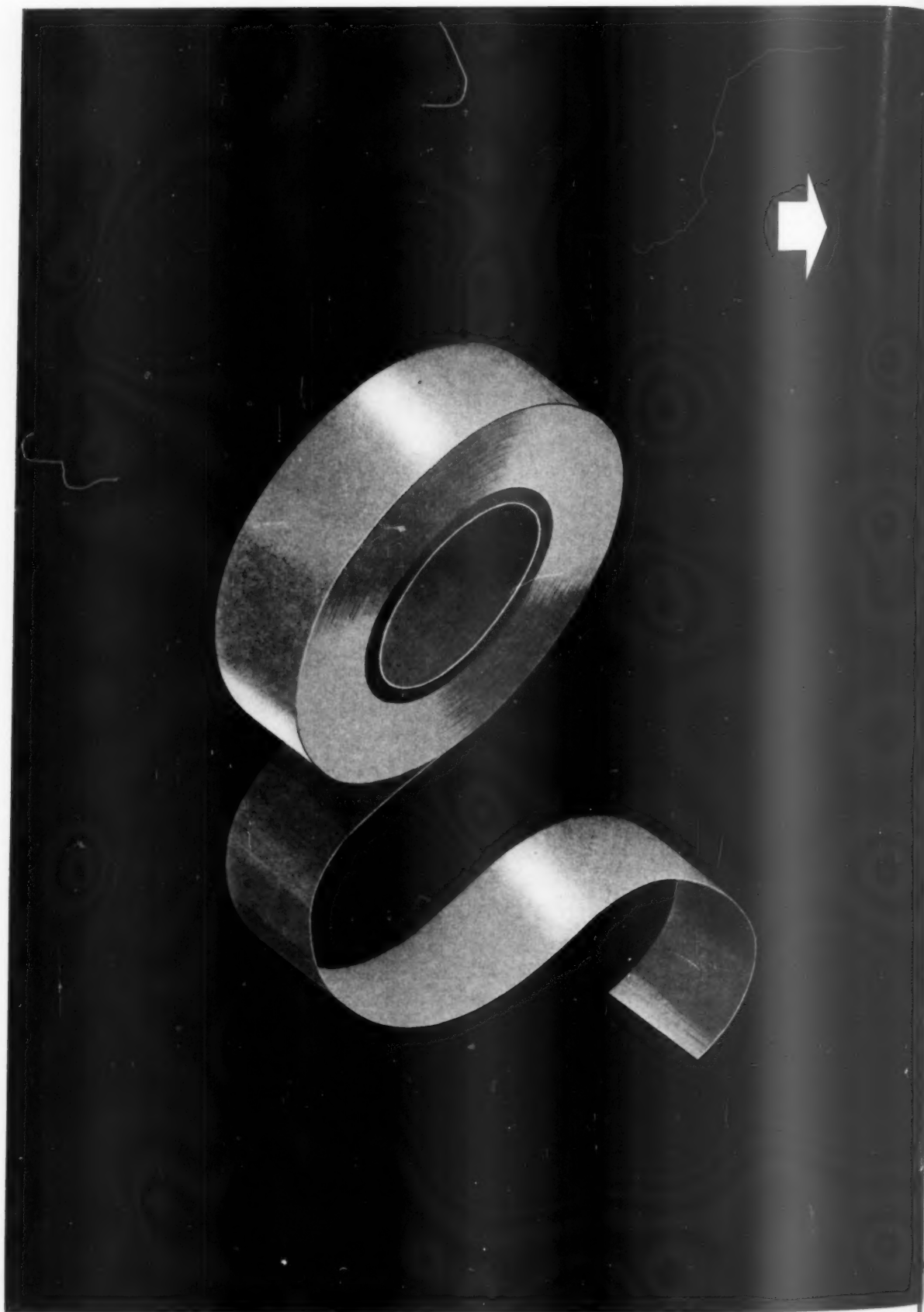
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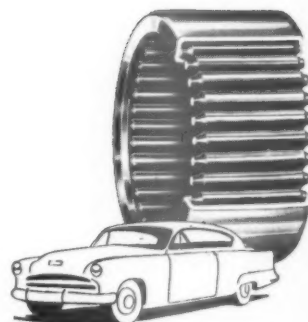
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# PERSONAL BUSINESS

BUSINESS WEEK

JAN. 8, 1955

A BUSINESS WEEK

SERVICE

Watch out for that post-holiday, fagged-out feeling. Unless you guard against it, your general health level may slide during the winter months ahead. And your chance of illness will go up.

One of the biggest factors in avoiding trouble is proper diet. Resistance to infection is greater in individuals who have a well-balanced diet than in those who don't. The reason is that a good diet contains all the vitamins, proteins, minerals, and other sources of calories you need for general good health.

A good diet is easier to talk about than to get—especially in the winter-time, and especially for the average executive.

In the first place, a winter diet is likely to be more limited than a summer diet. For example: You get less vitamin C because you have less chance to eat good fresh fruit; you get less vitamin A because fresh green vegetables are harder to come by. And less sunlight means less vitamin D.

On top of that, circumstances may limit an executive's diet even more. If he travels, eats a lot in hotels and small-town restaurants, his diet is often beyond his control.

Or if he has to entertain or be entertained, and drinks fairly heavily, he is getting a lot of calories and no vitamins at all from liquor. He may eat more sugar than average—and the average consumption is 500 calories worth of sugar per person per day in the U.S. There are no vitamins in sugar.

Finally, he may eat food that is prepared (or processed) in such a way that it reduces the vitamin content.

What this means is that there's a good chance that you're not eating properly (in fact, remarkably few Americans do). In that case, your doctor would undoubtedly advise you to take supplementary vitamin pills. This holds especially true right now, when you need your full quota of vitamins as a defense against winter's increased incidence of infection—particularly respiratory.

In all probability, your doctor will recommend multivitamin pills, not just those containing one or two vitamins. (Don't be surprised if the pills also contain minerals; they are regarded as equally important, nutritionwise.)

The reason for this is that it has been found that vitamins are not independent, but interact one upon the other. Hence folic acid (a B-complex vitamin) is active in the body only after being converted into folinic acid. This conversion is impossible without vitamin C. Also, if you are deficient in one vitamin, you will probably be deficient in others.

Don't worry about getting an overdose of vitamins. Most vitamins are water-soluble, can't be stored in the body anyway. The only ones that can make you ill are the fat-soluble A and D vitamins, which the body can store. And you would have to take far more than the prescribed dosage.

Remember, too, that even though vitamins are required in minute quantities, the body does not manufacture them. It must get them all from outside sources.

If you have felt that vitamin preparations upset your system, it's probably the particular carrier that you couldn't tolerate, not the vitamins themselves.

## PERSONAL BUSINESS (Continued)

BUSINESS WEEK

JAN. 8, 1955

The fact is that vitamins are essential to human life and health. Concentrated research is showing more and more that vitamins—some of which may still be undiscovered—can sometimes be the key to life or death.

The most dramatic example is vitamin B-12 (isolated only in 1948), the only specific treatment for pernicious anemia. An injection of a millionth of a gram per day will keep the pernicious-anemia patient in normal health. Moreover, B-12 has been found to be essential to growth in children.

However, there's a risk of developing a fixation, and becoming vitamin-happy. Such faddism will do no more than waste your money. Vitamins are not a cure-all, and probably an extra shot of them won't give you a greater-than-normal sense of well-being.

In short, vitamin preparations contain no mysterious elixir. You can get the same things—and a good deal more of the essentials needed for human life—in a proper diet (as long as it's "complete").

—•—

A good present for a host or hostess is a rare variety of cheese. Good cheese specialty stores carry about 367 varieties. The only rule-of-thumb for picking the "best" variety: Do your own sampling.

Cheese varieties divide into these five general categories:

- Hard cheeses, which are the best sellers; Cheddar and Swiss top the list. Excellent cheeses are available in both domestic and imported varieties.
- Grating or seasoning cheeses, such as Italian Parmesan and Romano.
- The blue molds—Italian Gorgonzola, French Roquefort and Bleu, Danish Blue, American and English Stilton. Used mainly as spreads with cocktails and dinner. Devoted followers also eat them for breakfast.
- Semi-soft varieties, such as Danish Munster or French Pont-l'Évêque.
- Soft, like German Limburger or English Dorset. Both soft and semi-soft varieties make excellent spreads and after-dinner cheeses.

Gourmets buy nothing but natural cheese—that made from whole milk (of cows, sheep, goats, buffalo, and other animals), with nothing removed or added except the microorganisms that give special flavor.

Pasteurized cheese is something else. The process removes most of the bacteria that are essential for successful ripening. Processed cheese is simply watered-down natural cheese, blended with such things as skim milk, water, spices, and such.

You can get a catalog of all varieties from Cheeses of All Nations, 181 Houston St., New York 2, N. Y.

—•—

Executives would find knowing shorthand useful. That's the word from James Carry, an executive of M. W. Kellogg Co., who learned it years ago, has been using it every day since—for meetings, telephone conversations, jotting down ideas fast.

It's especially good for meetings, says Carry. "I find it often startles people to have me read them word for word what they said, but it does help me keep things on an even keel."

—•—

Amateur chefs can now get a ladle with a scale built into the handle. The ladle holds a quarter of a pound; the scale reads in either ounces or grams. It sells for \$2.98, is made by Elainart Co., Atlantic City, N. J.

Contents copyrighted under the general copyright on the Jan. 8, 1955, Issue—Business Week, 330 W. 42nd St., New York, N. Y.





**TAKING IN THE SIGHTS** at the brand-new Worthington Corporation Exhibit, visitors operate action displays of air conditioning, pumping, electrical power generation and mechanical power transmission.

## Worthington opens new Industry-in-Action exhibit

This is the *first* permanent public exhibit sponsored by an industrial manufacturer which not only explains basic physical and scientific principles, but also shows exactly *how* these principles work for you in everyday business and industry.

Not *just* for business and industry, by the way. This dramatic display, featuring colorful, push-button-operated exhibits, shows how Worthington products reach a helping hand into your home, too — supplying power for your TV set, water for your morning shower,

cozy warmth in December, and cool, air-conditioned comfort all summer. It's a real story-in-action about a company serving industry, business and the home.

That in a nutshell is the keynote of the newly-opened Worthington Corporation Exhibit at 99 Park Avenue (41st St.) in New York City. Remember, we built this exhibit for *you* — be sure to see it. It's practically next door to Grand Central Station.

Worthington Corporation, Harrison, New Jersey.

4.17



**SIDEWALK SUPERINTENDENTS** watch Worthington construction equipment at work in three-dimensional, full-color scenes.

# WORTHINGTON



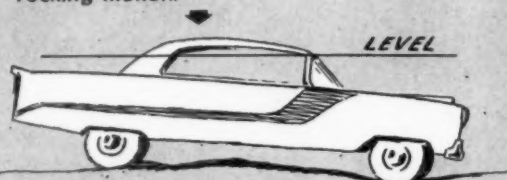
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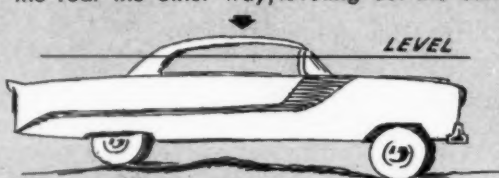
# PRODUCTION

## The New Packard Sells Its Engineering

Suspension system of conventional car has coiled springs in front and leaf-type springs in the rear. On rough roads, it tends to cause rocking motion.

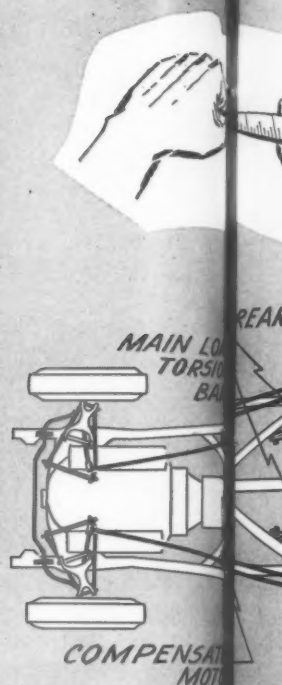


Packard claims its' system, called Torsion-Level, eliminates the rocking. When a bump makes the front go up or down, the system moves the rear the other way, leveling out the car.



Torsion-Level works on the principle that a long steel bar can be used as a spring, just like a coiled, or leaf type. If it's fastened at one end you can give it a twist (or torsion) at the other.

In the new Packard, steel torsion bars connect each front wheel with the one behind it. The torsion bars tell the rear wheels how to move for a level ride, reacting to the bumps in front.



## Designing for a Comeback in the 19

The car shopper who gets a demonstration ride in a new Packard next week is in for the shock of his car-owning life. The nature of the shock: an almost total absence of shock. The shopper will hardly feel the bumps even if the salesman is smart enough to pick the roughest road in town. The sketch above shows why.

The key to Packard's smooth ride is the use of metal torsion bars in place of conventional coil and leaf springs, for the first time in years on a U.S.-produced car. The innovation has a significance beyond its own merits. It marks the return of Packard in a major way to innovation—the traditional forte of the smaller automobile companies.

The torsion bar suspension is not the only bid Packard is making for a larger place in the automotive sun. In its new spot as part of Studebaker-Packard

Corp. it's stressing other engineering developments, too. And it has taken all sorts of steps to insure smooth and efficient production of cars. Still, innovation is the big pitch.

• **How to Be Different**—Historically there are always several hundred thousand new car buyers every year who want something different, apart from the products of the big three, General Motors, Ford, and Chrysler. This difference has been supplied by the smaller companies. They have had to be different traditionally—and they could be different because their lower volumes decreased the cost and the risk of innovations. These innovations have taken three broad courses, not always universally successful: specialization, as with Willys and its Jeep; styling, as exemplified by Studebaker's advanced design; and engineering, as in the uni-

tized body construction used by Nash.

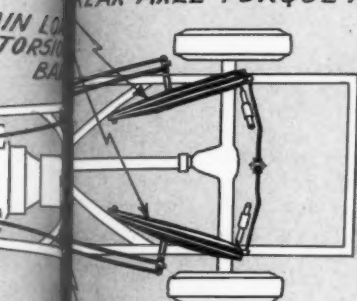
Of the three, engineering pioneering has always been the greatest forte of the smaller companies. Specialization as a general rule limits your market. But styling is so costly that the risk is no longer small, as Studebaker found out. A General Motors, by sheer volume of cars on the road, can force acceptance of a new style. A smaller company cannot anticipate that kind of volume.

• **Most for Least**—New engineering, at least the way Packard looks at it, can yield maximum benefits for low cost and low risk. A company of Packard's size, without the large and elaborate research and engineering establishment of the bigger companies, has fewer built-in inhibitions. It has available to it the mass of engineering experimentation being done by suppliers and free-

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REAR AXLE TORQUE ARM



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## the 1955 Race

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lance inventors. Of four outstanding mechanical features in the 1955 Packard cars, two—including the torsion bar suspension—did not originate within the company.

In the past, Packard relied heavily on engineering to hold its place in the industry. It was the first to have a steering wheel; the first to include headlamps, shock absorbers, and bumpers as standard equipment.

Such accomplishments gave the company a reputation for engineering. But in the money-tight 1930s and in the push to break into the medium-price class, some of its fine-car prestige was rubbed off.

Now Packard proposes to get it back. It has two new V-8 engines—a 245-hp. for the Clipper in the medium-price field, a 260-hp. for the Packard. This latter can be stepped up to 275 hp.

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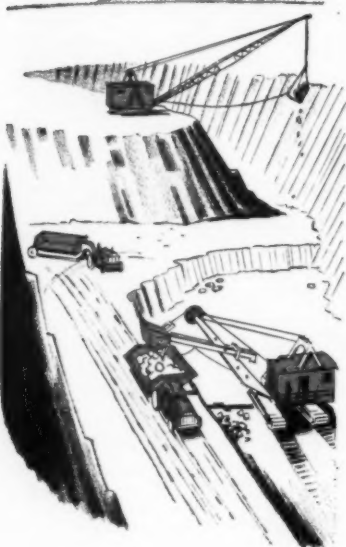
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with special equipment. The transmission is new, with two positions available in the drive range, and better acceleration features. The wiper for the wraparound windshield actually "goes around the corner" (this is the second mechanical innovation brought in from outside). But Packard's major engineering advance and the one it expects chiefly to capitalize on is the torsion bar suspension.

• **New Twist**—The principle of torsion bar suspension has been used for many years in Europe. There are many torsion bar patents on file in Washington.

Packard's torsion bar suspension completely replaces the conventional springing arrangement of coil springs at the front wheels and leaf springs at the rear wheels. The operation of the torsion bar alone is comparable to a leaf spring. A leaf spring bends under a load and then returns to its original position. A bar of spring steel will twist under a load just like a rubber hose and then return to its original position.

• **Up and Down**—Packard has used this twist-springing in an unusual way. As you see in the sketch on page 118, the front and rear wheels on each side are connected to bars running the full length of the car. The connection is through steel arms. As the wheels move up or down, the arms transmit the twisting force to the bar. In the front the arms on each side extend outward from the bar; in the rear they extend inward. Because of this mounting, when the front wheels move up (as in hitting a bump), the force is downward at the rear.

• **Even Keel**—That is what permits Packard's arrangement to give the easy ride over rough roads and bumps. But the manufacturer claims for its system another advantage: a constantly level body regardless of load in the trunk or rear seat, correct aim of headlights at all times, and reduced bumping of axle against the frame. This is possible because of Packard's use of a "load compensator." This consists of an additional torsion bar on each side at the rear of the car. It is connected to a gear box operated by an electric motor and located under the body below the driver's seat.

Assume you throw a 200-lb. load into the rear seat. This will force down the driving torque arm and twist (or wind up) the torsion bars. The load is so great the twist would run the full length of the bar, including the center portion to which is attached the switch of the electric motor. (A light load wouldn't wind up the bar as far forward as the center portion.) Through a built-in delay, the motor waits for seven seconds to prevent the compensator from operating every time the car hits a bump. Then the motor unwinds the



two extra torsion bars, imparting the same unwinding force to the main torsion bars to lift the rear end of the body back to its normal position.

• **The Customer**—What will be the effect of the torsion bar on sales? Packard's competition in the high-priced field—Cadillac, Chrysler, Lincoln, and Buick—profess not to be worried, insisting that Packard's type of torsion bar suspension is completely unproven to the public. Packard, while not unmindful of that argument, actually has little to lose. In the first nine months of 1954, its slice of industry sales fell to .76% as against 1.24% in 1953 and 1.59% in 1952.

So the company looks to the torsion bar, along with its new engines, transmission, and a fuller line of Clippers in the medium-price field, to reach its goal of 100,000 sales in 1955. But advanced engineering alone, Packard decided some time back, wasn't the full answer to its problem.

• **Goals**—That problem was recognized by James J. Nance when he took over the Packard presidency three years ago this spring. At that time he set five goals for the company: (1) establish Packard in the fine-car field (he thinks the engineering on the 1955 does that); (2) reintroduce the Clipper as a separate line in the medium-price field (that is done); (3) put together a new management team for 1955 (year-end job, but for practical purposes now complete); (4) make the company an "attractive bride" for a merger (the combination with Studebaker took effect last October); and (5) modernize the company's production facilities.

• **Flexibility**—Accomplishment of the last goal is perhaps the best demonstration of the inherent flexibility of the small auto manufacturer. For it was completed in a time span that most of the industry believed was unrealistic. Until a little more than a year ago, Packard bought its bodies from Briggs Mfg. Co. and built its engines and assembled its cars in one of Detroit's oldest manufacturing plants.

Today Packard builds its own bodies, and all of its work is done in modern buildings. The change cost about \$50-million, a sizable chunk for a company that lost money all year.

The engine work was switched to an existing plant at Utica, Mich. (about 35 miles from Detroit).

• **Bodies**—The switch in body and assembly work presented stickier problems. When Chrysler bought Briggs, effective Jan. 1, 1954, Packard knew it could not count on using Chrysler as a source of bodies. So it leased from Chrysler the plant in which Briggs had made the Packard bodies.

It was small by former Packard standards—about 750,000 sq. ft. compared to

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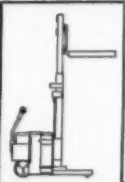
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about 4-million sq. ft. in the old plant—and could not be taken over until July 1, 1954. Then work on 1954 Packard bodies continued until September, making major refitting impossible until after that time. In the end, Packard had two months from September until November to revamp the layout.

The smaller size is actually an advantage. Bodies move directly from their own build-up areas to the final assembly line. With a double-shift capacity of more than 400 cars a day, the plant can build ample cars to meet the company's sales target. And in a smaller compact plant, Packard is saving money on production costs.

Ray P. Powers, Studebaker-Packard vice-president for operations, shudders when he recalls the material handling in the former Packard plant. Items would move by hand mostly, from one floor to another. There were loading delays, delays waiting for elevators.

• **Turnaround**—In using a smaller plant, Powers solved another problem that long has beset most auto assemblers: how to turn a production line 180 degrees.

Packard installed turnaround machinery at a cost of \$35,000 to \$40,000. The cars are not taken off the line to make the turn; they pass along a two-track floor conveyor, the tracks moving at different speeds.

• **Plastics**—The company's entire outlook now is directed toward using its size as a source of strength. Nowhere does this show up better than in the 400 hardtop convertible in the Packard line. The distinctive parts of this model are built up from plastic dies—the first production use of plastic tooling in the industry. Plastic tooling is relatively inexpensive (for \$500,000 Packard got a new, different looking model) and can be made faster than metal tooling.

Roger Bremer, chairman of Packard's Product Committee, points out that future use of plastic tooling will enable Packard to experiment even in the risky area of advanced styling. The basic parts of the car would be made from conventional tools, cost of which would be absorbed over the whole line of cars. The distinctive features would be made from low-cost plastic dies.



EXPLOSION at Commonwealth Edison's generating plant has experts pondering . . .

## Why a Turbine Goes Berserk

This week, Commonwealth Edison of Chicago was recovering from one of the worst failures of steam turbine generating plants ever recorded in the U.S.

Late in the evening of Sunday, Dec. 19, a steam turbine unit in the com-

pany's Ridgeland (Ill.) station was being returned to service after a routine maintenance job on the boiler. About midnight, one of the turbines flew apart (picture). A five-ton piece of metal was hurled several hundred feet across the power station. Later, a 200-

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lb. chunk of metal was found nearly half a mile away. Presumably it had gone through the roof, since there was a hole about 50-ft. square. Two men were killed, five others injured.

At the height of the holiday season—when short days, long nights, and Christmas lighting had combined to create one of the year's biggest power demands—Commonwealth suddenly was deprived of 600,000 kw. The unit that failed was made up of a 50,000-kw., 3,600-rpm. high-pressure turbine and a 100,000-kw., 1,800-rpm. low-pressure turbine. The turbine that exploded was the low-pressure element. The explosion also damaged other generating equipment, cutting power output.

Foremost in the experts' minds is metal fatigue—a problem that has caused many headaches in the aircraft industry (BW—Nov. 6 '54, p121). People who have studied the big turbine explosions believe that most of them were due to metal giving under stress and wear. Commonwealth's latest thought about the Ridgeland turbine is that the explosion was "apparently" caused when—the rotor spinning at about its rated speed of 1,800 rpm.—the spindle broke, and turned the whirling mass loose to spread itself over the landscape.

## PRODUCTION BRIEFS

More glass-making capacity is in the offing. Last week Libbey-Owens-Ford Glass Co. approved an expansion of \$25-million. That will pay for a big new melting furnace, and equipment for grinding, polishing, bending, and laminating—the equivalent of an integrated plant. The furnace will increase the company's capacity by nearly 50%.

Another merger: Baldwin-Lima-Hamilton Corp., Hydropress, Inc., and the Lowey Construction Corp. confirmed that they will complete transactions some time this month. Baldwin is a major manufacturer of locomotives and earth-moving equipment. Hydropress and its subsidiary, Lowey, are best known for their designs and engineering of mammoth hydraulic extrusion presses.

Three flight simulators, land-bound versions of airplane cockpits, have been ordered by the Air Force from the Electronic Div. of Curtiss-Wright Corp. The simulators are for transport planes—military versions of the DC-6, Convair 240, and the radar-carrying model of the Super Constellation. Total cost will top \$6-million.

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This work, and the Bridgwater designed and built Contour Milling Machines on which it is accomplished, is typical of the *many* specialized machine tools, skills and metalworking techniques we offer manufacturers to help them meet difficult production requirements, yet keep costs down. It is typical, too, of the Bridgwater ability to make sub-contract machining and fabricating *profitable* to manufacturers in a wide range of industries.



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## NEW PRODUCTS

### Cloudy, but Clearing

Would-be weather prophets who have had to rely on their barometer's traditional but ambiguous designations—"Rain," "Change," "Fair"—are getting a break.

Taylor Instrument Companies now produces a line of Stormoguide dials that fit all the company's barometers, and are said to pin down the upcoming weather more accurately. The dials are calibrated in two sections. The outer section shows what to expect, within certain ranges of changing pressures, if the barometer has been rising. The inner section forecasts over the same range of changes, this time for falling pressures. Sample readings: "high winds and colder"; "increasing winds, cooler"; "squalls and clearing"; "tornadoes and hurricanes."

According to Taylor, these gradations aren't just whimsy, but the results of a research project.

• Source: Taylor Instrument Companies, 95 Ames St., Rochester, N. Y.

### Safety for Skull

A new idea in an old package is the hard hat made by Willson Products, Inc., of Reading. Willson claims that the conventional harness between the shell and the head isn't as shock absorbent as it ought to be—it doesn't spread the impact over a wide enough area. To deal with this problem, the company has adapted a pneumatic headband developed by Cornell Aeronautical Laboratory, Inc., of Buffalo.

Inserted between the sweat band and the shell of the hat, the headband is made of vinyl plastic air cells. Cells are connected by tiny holes; a blow on any part of the helmet forces air out of one cell into all the others, distributes pressure more or less evenly all around the head.

• Source: Willson Products, Inc., Reading, Pa.

### Easier, Safer Moving

Moving materials by hand cart is a tricky business, even on flat surfaces. And when stairs are involved, it can be a real safety hazard.

Valley Craft Products, Inc., has developed a hand cart that, it claims, will negotiate stairs or inclines with loads twice as heavy as the conventional hand truck can handle.

The Stair Cart has a ratchet mechanism built into one of the wheels. From this mechanism extends an arm, with a long cable attached. The cable

is the operator's control. By pulling up on it, he can transmit—through the ratchet arm to the wheel—a force many times greater than he could apply merely by pulling up on the cart's handle. The torque developed by the ratchet lever is transmitted to both wheels, and gives the effect of a small motor drive.

Also incorporated in the Stair Cart is a two-wheel braking mechanism that allows the operator to stop and hold the cart wherever he wants. By pulling up on the control cable, he can lift the cart up a step, put on the brakes, release the ratchet, and repeat.

• Source: Valley Craft Products, Inc., 750 Jefferson, Lake City, Minn.

## NEW PRODUCTS BRIEFS

A patching material that handles like putty and dries to near-steel hardness is made by Chemical Development Corp., Danvers, Mass. Devcon is 80% steel, 20% resin, can be sawed, drilled, threaded, and machined once it has hardened.

Antifreeze solutions can be tested with a pocket-sized unit manufactured by Rolf Darbo Enterprises, 200 North Prospect Ave., Madison 5, Wis. The maker claims that its Cold Cup, which uses dry ice to freeze its test samples, is consistently correct to within two degrees. Price: \$12.00

A spring steel buffer can be mounted in the garage to protect the walls. Tuthill Spring Co., 760 West Polk St., Chicago 7, sells a \$9.95 kit that is supposed to cushion the shock when you drive your car a bit too far.

Wall-Grip hooks need no nails or bolts, and can be used on steel partitions, tile walls, brick or concrete surfaces. The hooks, made by Polyphase Mfg. Co., 7 Dumont St., Rochester 17, N. Y., are stuck on with a special adhesive, are supposed to support over 30 lb. Three for \$1, less if ordered in quantity.

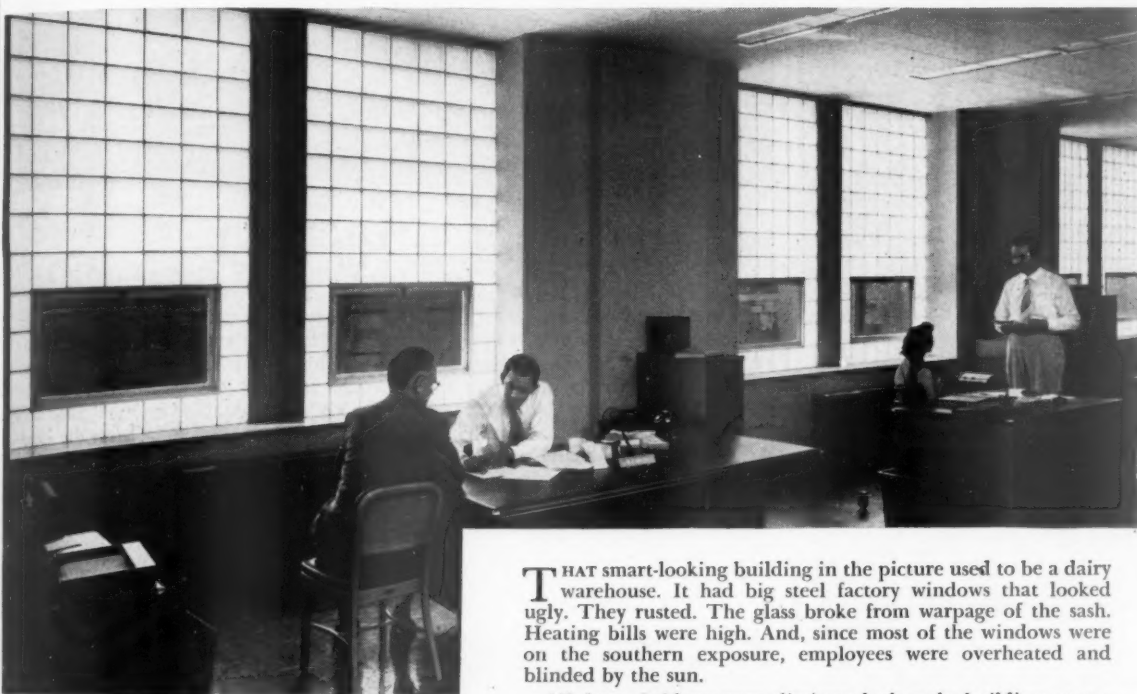
Take the wet glass marks off table tops with a new compound called Blem. Made by S. C. Johnson & Son, Inc., 1525 Howe St., Racine, Wis., manufacturers of Johnson's wax, Blem is supposed to smooth out the damaged surface and apply a new coat of dark coloring all in one action.





## "PC Glass Blocks made a beautiful building out of an old warehouse"

says Mr. J. T. Acree, Jr., President, Lincoln Income Life Insurance Co., Louisville, Kentucky

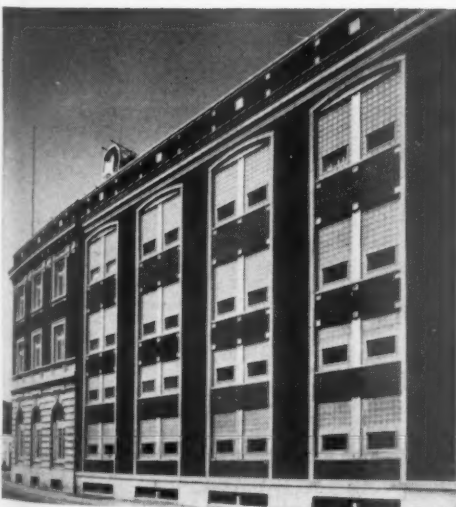


THAT smart-looking building in the picture used to be a dairy warehouse. It had big steel factory windows that looked ugly. They rusted. The glass broke from warpage of the sash. Heating bills were high. And, since most of the windows were on the southern exposure, employees were overheated and blinded by the sun.

All these problems were eliminated when the building was remodeled with PC Glass Blocks. These are *functional* PC Glass Blocks—the kind that throw the light up onto the ceiling where it bounces down, soft and diffused. The blocks only have to be washed once a year or so (compared to twice a month for ordinary windows), window blinds have been eliminated (you never need them with PC Functional Glass Blocks), and employees work in perfect comfort all year long.

Mr. Acree says, "We have received wide comment on the improved appearance of our building, and employees now work under the best possible lighting conditions. Also, our heating bills are lower due to the insulating qualities of the PC Glass Blocks."

You can get results like this, too. Write for more information to Pittsburgh Corning Corporation, Dept. G-15, One Gateway Center, Pittsburgh 22, Pa.



## PC Glass Blocks



ALSO SKYTROL® AND FOAMGLAS®

**RECORD STORAGE a problem?**

**Solve it with—**

- Low-Cost
- Convenient
- Space-saving

**STAX ON STEEL**  
REG. U.S. PAT. OFF.  
**TRANSFER FILES**

The only fibre-board  
**DRAWER FILE**  
that "builds its own steel framework as you stack it"



\* STAX ON STEEL gives you easy-action drawers—quick access to records. Each corrugated fibre-board unit is complete with factory applied steel framework for sturdy support in rear and front. Interlock side-by-side and stack to the ceiling to save space. Letter size illustrated—\$4.70 per unit, slightly higher south and west.

Send today for FREE Catalog picturing and describing economical record storage products for every business.

**BANKERS BOX COMPANY**  
720 S. Dearborn Street • Chicago 5, Ill.

**SAVE BY MAIL**

**EARN 4%**  
CURRENT RATE

...on our Prepaid Savings Certificates. One of Chicago's Oldest and Largest Savings Associations. Accounts opened by 15th earn from 1st. Save by Mail! Send check or write for free Financial Booklet. Address Savings Dept. 200.

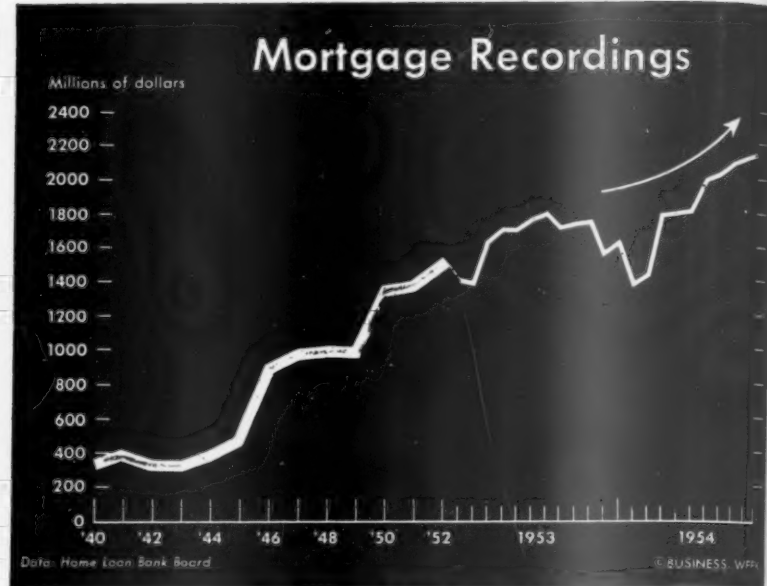
**\$25 Million Strong!**  
**CITY SAVINGS ASSOCIATION**  
1656 W. Chicago Ave., Chicago 22, Ill.

**"clues"**

THE classified section of BUSINESS WEEK, which penetrates the top management men bracket, is published every week. For further information write:

"Clues" BUSINESS WEEK  
330 W. 42nd Street  
New York 36, N. Y.

# CHARTS OF THE WEEK



## New Mortgages Hit Peak

Nonfarm mortgage recordings of \$20,000 or less have been shattering all records as the building boom pushes onward. In October, which set an all-time peak, they were running about six times the average for prewar 1940, and were nearly 24% above October, 1953.

This high level of mortgage lending reflects home buying by the vast middle-income group, whose activities have an important effect on the direction in which our economy moves. The increase

in mortgages indicates not only the extent to which new houses are being bought; it also reflects the turnover of older homes.

Today the demand is largely for three-bedroom homes—a shift from the situation just after the war, when the need was for the smaller, two-bedroom homes. Many who found the small house adequate in 1946, when the first big housing push began, now require larger homes; today's families are big.



## Construction Has Biggest Gain

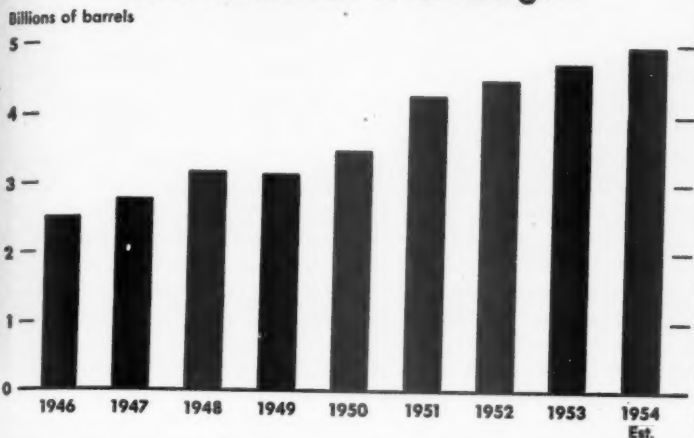
The latest annual study by the Commerce Dept. on the number of U.S. business firms reveals a striking growth in the contract construction industry compared with all other industries.

In 1946 there were 199,000 contract construction firms in the U.S. By 1949 the number had jumped to 339,000 and by Jan. 1, 1954, to 431,000. This represents a gain of 116.6% in the eight

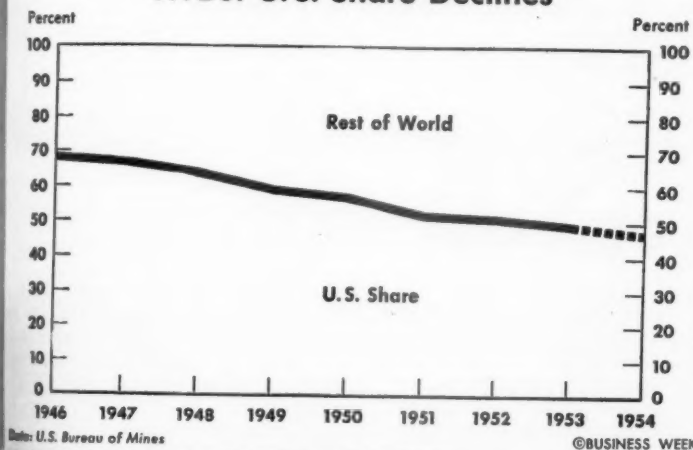
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## The World Oil Picture

### Total Production Is Climbing ...



### ... But U.S. Share Declines



## In U.S., the Climb Is Slower

In the postwar years, with the exception of 1949, world petroleum production has moved upward at a rapid pace. Today it stands close to 5-billion bbl. per year. During the same period, the U.S. share of the world output has been falling off year by year.

This is not to say that U.S. production of petroleum has been on the decline. Quite the contrary: Production has increased from just under 1.3-billion bbl. in prewar 1939 to well over 2.3-billion in 1954, an increase of 77%.

The 1954 output was 35% above output in 1946, and the U.S. was still the world's most important petroleum producer. But it looks as if final 1954 figures will show the U.S. providing around 47% or 48% of total world output this year — against 68% in 1946, and 61% back in 1939.

It is, of course, the increasing importance of the Middle East as an oil producer that has upset the balance and caused a decline in the U.S. position in recent years.

**A Manufacturer  
ran this ad:** ✓

**WANTED  
300  
EMPLOYEES**  
not presently engaged  
in industry, to work in  
South Carolina plant.

**In 48 hours this was  
the result** ✓

**3500 replies.**  
90% high school graduates  
23% with college education

## **PROOF** of South Carolina's plentiful supply of Industrial Manpower!

A new firm in South Carolina placed a small classified advertisement for employees. Within 48 hours, there were 3500 applications, 90% of them from people of high school graduate level and above. This is an actual case history—a typical South Carolina story of available manpower.

Manpower in South Carolina is plentiful; it is intelligent and highly adaptable; and it is a continual supply. In South Carolina, for every 100 men who die or retire on the farm aged 65, there are 215 boys aged 27 and up to replace them\*... the third highest rate of replacement in the country.

This is only part of the manpower story that has made it profitable for hundreds of diversified industries to locate in South Carolina.

For full information on the many advantages South Carolina offers you and your industry, telephone LD 94, or write:

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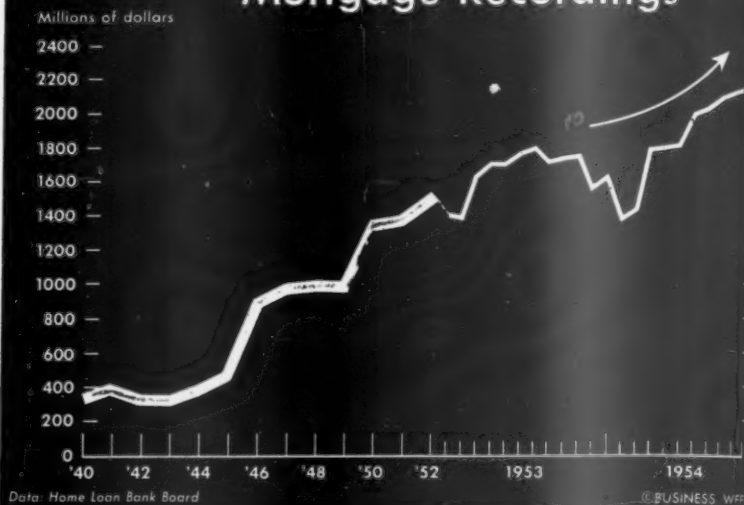
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# CHARTS OF THE WEEK

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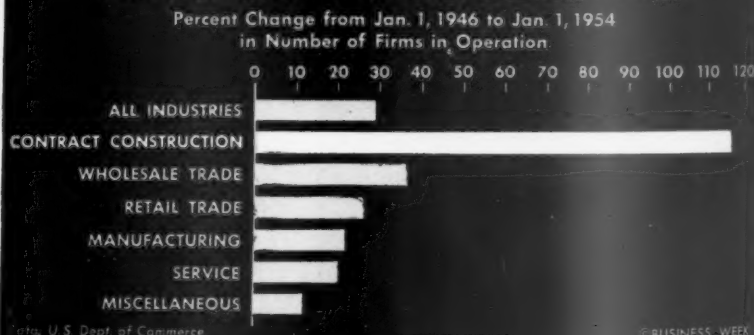
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## Postwar Growth of U. S. Business Firms



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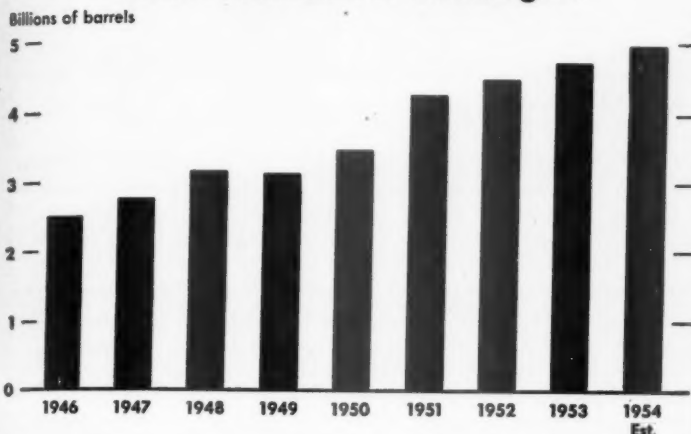
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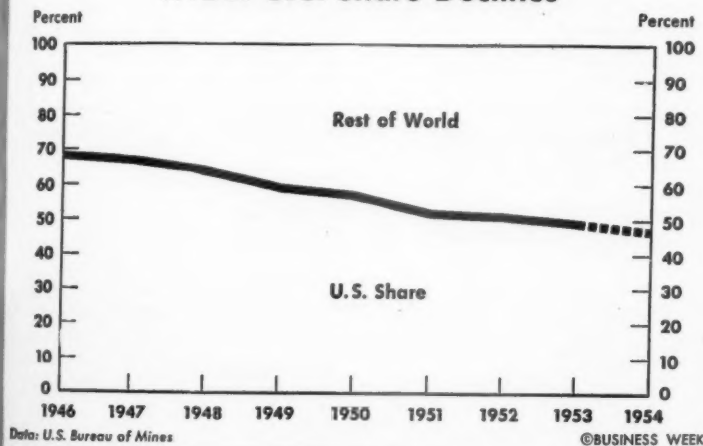
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# MANAGEMENT

## How Corporations Support the Private Colleges

... the strings are coming off, the scope is broadening

**Before 1952**

Most corporation aid took the form of scholarships, often for employees or their families, usually toward scientific education.

**1952**

Union Carbide and others made scholarships open to all comers, and not limited to scientific courses. Besides scholarships, grants-in-aid were made directly to the college general funds.

**1953**

Grants to general funds were stepped up, and often channeled into the state and regional associations that had been formed to bolster soliciting.

**1954**

Standard Oil (N. J.) removed all strings from its \$450,000 gift spread among 138 private colleges. New giving techniques were tried. Columbia Broadcasting gave funds to the colleges its key executives attended; General Electric matched dollar for dollar the private gifts made by its employees; General Foods split \$75,000 among three schools, \$145,000 among 11 state and regional associations.

## Broader Aid for Education

Late last month, the General Foods Fund, Inc., announced gifts of \$270,000 to higher education. The foundation, set up by the giant food company to make contributions, gave \$25,000 apiece to three colleges—Antioch, Whitman, and Williams; \$145,000 went to 11 state and regional associations of private liberal arts colleges, \$25,000 to the National Fund for Medical Education, and \$25,000 to the Negro College Fund.

The General Foods grants (table above) highlight the latest methods used by corporations to help support private education.

- The gifts were all unrestricted, can be used as the colleges see fit.

- Extensive use was made of the associations set up to coordinate and bolster soliciting. The groupings distribute gifts to their members by a set formula (BW—Sep. 6 '52, p84).

- Liberal arts colleges got heavy emphasis.

Other corporations, groping in the fogs that wrap such donations, have

found somewhat similar paths. The problem was tough. Only a few weeks ago, Eugene Holman, board chairman of Standard Oil Co. (New Jersey), told skeptical reporters, "You'd be surprised how difficult it is to give money away."

- **Experimental**—Holman was explaining the problems faced by Jersey Standard when it decided to pour half a million dollars into the drying stream of funds that feeds privately endowed colleges and universities (page 78). He admitted that the solution arrived at was experimental, and might easily be changed if the company made a similar grant next year.

After much soul-searching, Jersey Standard decided to split \$450,000 among 138 private institutions in the U. S., with no one getting more than \$5,000. Another \$50,000 was given to the National Fund for Medical Education. There were no strings at all attached.

The giving methods reached by General Foods and Jersey Standard, plus a lot of other companies, have generally

been arrived at by two stages. In the first stage, management makes up its mind that the need of the colleges is bona fide, sometimes desperate, and always becoming more serious (BW—Jan. 1 '55, p72). The groups set up to advertise this need, such as the Council for Financial Aid to Education, seem to have done their work well.

- **Ways and Means**—The second stage involves deciding: How do we give the money and to whom? This stage is strewn with reefs and shoals:

- The big grant to a single school draws yelps from the others; but the same money, spread thinly over many schools, doesn't make much splash.

- The national corporation must keep in mind every school in every state where it does business.

- Directors and other officers inevitably have their favorite institutions. Frequently these are the heavily endowed colleges where the financial picture is not so bleak as at many smaller colleges.

- The real need on the campuses

is cash for operating. This means outright, unrestricted grants, not scholarships. A straight scholarship, without an accompanying grant-in-aid, is a losing proposition for the college because tuition usually covers only part of the cost of educating the student. But managements and stockholders have always been wary of the unrestricted grant: They would rather see their money working on something specific that will benefit the company directly.

- Corporations feel they must consider the colleges that supply them with most personnel, that the first scholarships should go to their own young employees or the children of employees.

- Finally, corporations still have to think about stockholders. Donations, under present taxloads, are pretty cheap (companies can deduct 5% of their income before taxes for charitable or educational contributions), but stockholders may say: "Let's have the dividends; we'll distribute them."

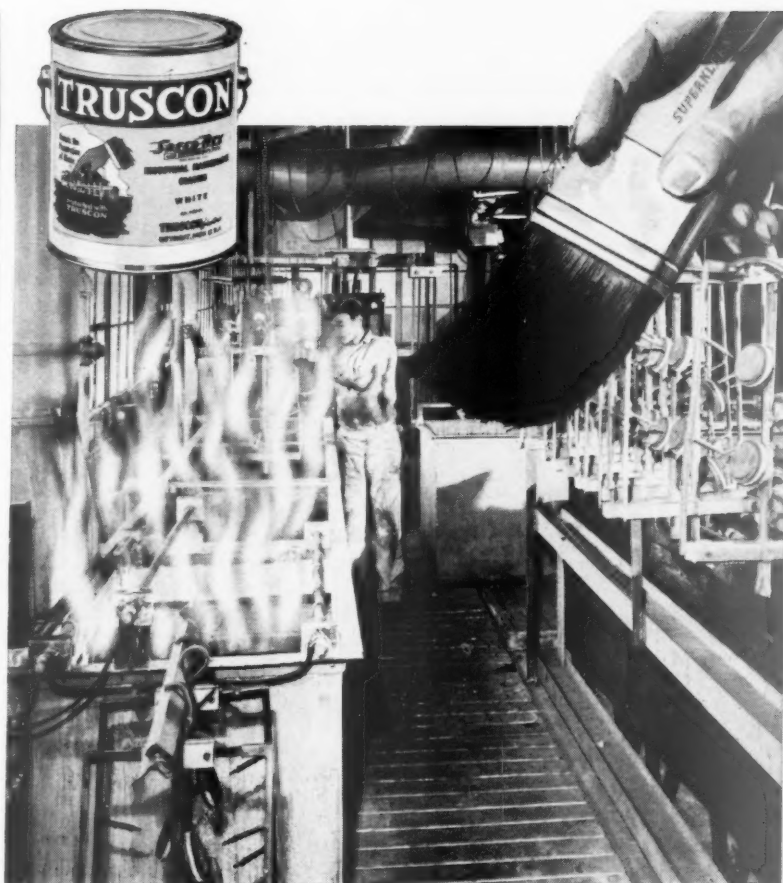
Taken together, these difficulties are impressive. They aren't enough to keep the money from flowing, but, according to many smaller colleges, they do cause the money to flow unequally. The corporations play their favorites, and a lot of schools get peanuts.

- Dilemma—Even when a corporation is aware of the inequities and tries to overcome them, it finds the going rough. Look at Jersey Standard.

Its \$500,000 grant is a husky one (Jersey Standard also gives a larger amount each year in other forms such as scholarships). The new grant would have been like plasma to any one small college. But what college? And what about the repercussions from other schools, from employee-alumni of other schools, from stockholders? Few companies have interests more widely spread than Jersey Standard. Finally, if the whole bank roll went to one school, wouldn't it create an uneasy feeling of indebtedness on the part of the educators?

- Matching Gifts—Jersey Standard considered many schemes. Holman says it is particularly interested in the General Electric plan whereby the company matches any gift, up to \$1,000, that an employee gives to his college. A vast number of schools could receive some benefit from this plan. Philip Reed, GE chairman, estimates that the company employs at least 23,000 college graduates with degrees from 540 schools.

- Advisers—In making its decision, Jersey Standard called in a group of



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**TRUSCON "Speed Rex" Protects Metal, Concrete and Wood Against The Ravages of Acids, Alkali, Moisture!**

Truscon's business is helping your Maintenance Department cut costs, prevent expensive damage to your plant and equipment.

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**Maintenance Problem? TELL IT TO TRUSCON!**



### IT'S ALIVE! IT'S DEVRAN!

Devran (Epoxy Resin) enables "Speed Rex" to bounce back from hard knocks as well as from chemicals. Actually, a ball of solid Devran has more bounce than a golf ball!



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### EMPLOYMENT

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**National Account Sales Representative wanted**  
by Nation Truck Leasing System. Man will hold in Chicago, considerable travel. Top sales rating necessary. Apps treated confdly. Mail resume, photo promptly. No personal contacts. Write Ntla, 23 E. Jackson Blvd., Chicago 4, Ill.

**Positions Wanted**  
Fifteen years' experience in Cold Heading from operation and set-up thru sales and production planning, quotation analysis, purchasing, etc. Married, 43, prefer West Coast. Position with responsibility resulting in opportunities for advancement primary goal. PW-5034, Business Week.

**Stylist-Designer:** Attractive young lady, executive retail merchandising experience, public relations director with eleven years performance in man-made and natural fiber textile industries, selling to automotive, apparel, radio and television markets, now employed, desires position. PW-5039, Business Week.

**Sales Executive young, energetic, with ten year** record of successful industrial sales management. Executive course graduate. Desires West Coast location. Will invest capital. PW-5008, Business Week.

**Sales Promotion—Sales and advertising manager** for small manufacturer desires position with larger company. Experienced in direct mail and working with salesmen and dealers. Age 37, married. Degree in marketing. \$8,500 desired. PW-4935, Business Week.

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### BUSINESS OPPORTUNITIES

**New Tax-Deductible Opportunities. Wilson, 48** Fifth Street, Hermosa Beach, California.

### EQUIPMENT

**For Sale**  
**For Sale—Remington-Rand Electric Accounting** Machine Model 585, front feed type, 10 live registers with 7 bank capacity, 2 crossfooters with 8 bank capacity. New in 1951, used 2 1/2 years only. Write administrator, Bashline Hospital, Grove City, Pa.

### CAPITAL TO INVEST

**Stock issues, Chattel mortgage, Loans—Increase** working capital: Expansion financed. Sy Field, 1008-5th Ave, NYC 28, BU 8-5792.

educators to help advise it as to what colleges should receive donations. It was decided that only privately endowed institutions in the U.S. would benefit, and that no one of them would get more than \$5,000.

Feelings were bound to be hurt, and Jersey Standard knew it. On the one hand, hundreds of schools would be left out. On the other hand, \$5,000 is simply not a lot of money.

To the second, Holman's answer is that future financial aid to education must be founded on more small gifts from more sources. It's plain that he hopes that others will spread the corporate jam thinly as Jersey Standard has done, so the ultimate total will be a sizable grant to each institution.

In the meantime, the colleges favored will certainly be able to put their \$5,000 to work. If a college goes in the hole at the rate of \$500 per year for each undergraduate, the Jersey Standard gift will take 10 students off the burden list.

Holman was reluctant to go into detail on how the schools were chosen. A quick look at the list shows that generally they are institutions known for their high scholastic standards. Here's a sampling: Bowdoin, Oberlin, Stanford, Princeton, Rice, Wellesley.

• **No Strings**—The Jersey Standard gift has two significant aspects. First, it goes to a large number of colleges, many of which probably supply few graduates to the petroleum industry. Second, it goes to the colleges' general working

funds, with no strings attached. Educators will undoubtedly rank the second as the more important.

In the past, corporations have offered two public excuses for not making unrestricted gifts. They didn't know the colleges needed funds so badly, and they were afraid their stockholders would rebel. Public opinion polls upheld the second belief.

But the corporations had other reasons. It's satisfying to have young people studying under a Widget Machine Tool Corp. scholarship, professors holding a Widget Chair in History. It's also satisfying to have employees' sons return to the company after studying at Michigan or Cornell on a Widget Sons and Daughters Scholarship, or to have a new gear tooth designed by a graduate student holding a Widget Research Fellowship at Stevens Institute of Technology.

• **The Dam Breaks**—The educators certainly do not want all of this discontinued; but they do need cash. And the cash is beginning to flow now that the two publicized factors to outright gifts are being removed. Any executive who reads or listens has become aware of the plight of the colleges. And there is less fear that the stockholders will beef about unrestricted gifts. The stockholders, too, have learned that the colleges need money; and court decisions have indicated that a corporation may give its funds, no strings attached, to a college without first obtaining stockholder approval.



## Where Experts Untangle Business Laws

Businessmen and lawyers are getting a guide to how corporations tick legally. The American Bar Foundation, research section of the American Bar Assn., has launched a project to analyze and interpret the laws under which corporations operate. When compiled, the results will be published

by ABA's committee on corporate laws.

The program dovetails into the new emphasis on research for the legal profession that is being carried on at the American Bar Center's new \$2-million building (above) in Chicago. About 300 companies chipped in to help finance the new center.



## MANAGEMENT BRIEFS

Graduates of the 18-year-old management training program for women at Radcliffe (BW-Oct.11'52,p70) are getting more jobs in business, according to a survey of the alumnae. Ten years ago, only 40% of these graduates got business spots—the rest went to nonprofit organizations, government or military work. Today, 60% are in business. The program is jointly sponsored with Harvard and is taught largely by the B-School faculty.

Reynolds Spring, a Jackson (Mich.) company that kept investors bueyed in 1954 when its stock soared from \$5 to over \$26 a share, is leaving the spring business and changing its name. Spring assets will be sold to Stubnitz Greene Spring Corp. Reynolds will acquire—through an exchange of stock—most of the assets of the A. W. Haydon Div. of North American Philips, maker of electrical motors and timing devices. Reynolds' new name: Consolidated Electronic Industries.

Good neighbors: E. I. du Pont de Nemours in Wilmington, Del., long ago spilled across the river into New Jersey. Last week the company disclosed the volume of the flood. In 1953 du Pont fed \$125-million into New Jersey's economy. The biggest item: wages and salaries at \$81,200,000. Purchases from New Jersey suppliers accounted for \$43,900,000.

J. D. Adams Mfg. Co., Indianapolis producer of road graders and earth loaders, has merged with LeTourneau-Westinghouse, subsidiary of Westinghouse Air Brake. Adams, with plants in Indianapolis and Ontario, will be operated as a division of LeTourneau-Westinghouse. The probable price paid for Adams: over \$10-million.

Closed-circuit television will be used in mid-February to transmit the actual proceedings of a labor-contract negotiation. The bargaining session will be in Rogers, Conn., between the Rogers Co. and the International Brotherhood of Paper Makers (AFL). On the receiving end in Chicago will be 1,800 viewers at the midwinter personnel conference of the American Management Assn.

Reo Motors, Inc., Lansing (Mich.), truck maker recently set up as subsidiary of Bohn Aluminum & Brass Corp., has named its new officers as the start of production nears. John C. Tooker, the president, was on the old Reo team, as were most of the other new officials.

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## Forecasting: How Good Is It?

All the economic forecasts on the outlook for 1955 are now in, and the predictions provide a remarkable picture. Not one economist of any note foresees a decline ahead, and at the same time, very few are predicting a sharp and sudden rise to boom conditions. The consensus is that the next twelve months will see business activity climb above 1954's level and perhaps over the peaks reached in 1953.

Rarely have so many predictions been so substantially in agreement, a fact that focuses attention on the current state of economic forecasting.

Forecasting has assumed enormous importance in our economic system. The federal government, for example, must base its policies on assumptions about the future. In fact, the terms of the Employment Act of 1946 specifically charge the President's Council of Economic Advisers with the task of gathering information on prospective trends in order to make constructive recommendations.

Business, too, bases its decisions on forecasts. In a new booklet titled *Business and Economic Forecasting*, the U.S. Chamber of Commerce points out that the business executive, "even if he has little faith in forecasting," is nevertheless "constantly engaging in an art that he claims to be of dubious merit."

### The Record Improves

Until last year, forecasting was considered by most economists as extremely perilous. In general, their post-war record left them little to boast about.

But last year, came a change for the better. There were some forecasters, like Colin Clark, who prophesied doom, and some, like W. S. Woytinsky, who predicted a continuation of the boom. The overwhelming majority, however, predicted that 1954 would see a mild decline, while many went further out on a limb and said that there would be an upturn in the latter part of the year.

The fact that actual activity was in line with predictions has given forecasters confidence in their analytic tools. At the annual meetings of the American Economic Assn. (page 104), for instance, delegates were no longer so reluctant to talk about their record. R. C. Turner of Indiana University spoke for many of his colleagues when he declared that "much of the pessimism regarding the potentialities of forecasting" is "exaggerated or outdated."

There is no doubt that last year's record was impressive, and may have marked a turning point in short range—six months to a year—forecasting. The economists themselves freely admit that they have benefited by greater comprehension of the changes that have taken place in our system and continual improvement in statistical data.

Forecasters also admit a debt to the statistics on inten-

tions to spend, such as the McGraw-Hill survey of business plans for new plant and equipment (BW—Nov. 6 '54, p30) and the Michigan Survey Research Center reports on consumer intentions (BW—Nov. 27 '54, p124).

Considering the variety of tools at the disposal of our forecasters, it may appear easy to chart the immediate future. But our economy is so complex and changes so quickly that it takes great skill and judgment to forecast with any accuracy.

Even the most self-assured forecasters at the AEA meetings made plain that their predictions depend for the most part on good statistics. They feel that the government must continue to improve its statistical information, particularly in such fields as construction, inventories, and unemployment.

Moreover, most economists, including those who have faith in their short range forecasts, agree that their medium and long range predicting is still little better than informed guesswork. In fact, most of the predictions that we have for 1960 or 1965 are merely projections of desirable objectives. Yet the AEA emphasized that both government and business need to know more about long term conditions if we are to avert the cyclical fluctuations we have experienced in the past.

If economists get better data and improve their methods, the bright record made in the last year will undoubtedly be improved. This is essential if we are to achieve a full measure of progress and stability.

## Security

Security in government was a major issue of 1954, the year that brought the McCarthy denouncement and the Oppenheimer case. There will be more of the great security debate in 1955.

As the year opens, the problem of security is reflected in the case of Wolf Ladejinsky, an agricultural expert formerly attached to our embassy in Tokyo. Cleared only last spring by the security-conscious State Dept., Ladejinsky has been denied a clean bill of loyalty by the Agriculture Dept.

Lacking the evidence in this case, we are not competent to judge who is right. We do believe, however, that it has not been wisely handled. Ladejinsky's case already damaged U. S. prestige in an area where prestige counts most—in Asia.

We do feel that the nation can still benefit if this case results in a reexamination and clarification of the present security program. That the departments of Agriculture and State, each with its own security systems, are fighting among themselves is a sign that something is amiss. Pres. Eisenhower has declared that the whole program will be clarified and we hope that this case is the spur that leads to a careful inquiry.

*At play or at work*

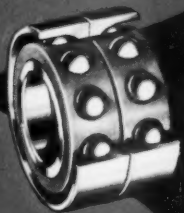


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